ST-JX430L

SERVICE MANUAL

AEP Model
G-AEP Model

SPECIFICATIONS

Tuner

Circuit system: PLL digital frequency synthesizer
Quartz lock system
FM stereo/FM-AM tuner

FM tuner

Frequency range: 87.5 – 108 MHz (50 kHz step)
Antenna terminal: 300 ohms, balanced (AEP model)
75 ohms, unbalanced (AEP, G-AEP model)
IF: 10.7 MHz
Sensitivity

S/N 46 dB	Mono	AEP model: 19.5 dBf (5 μV)
		G-AEP model: 2.5 μV
	Stereo	AEP model: 39.5 dBf (50 μV)
		G-AEP model: 25 μV
Usable sensitivity (IHF)		AEP model: 11.5 dBf (2 μV)
		G-AEP model: 1 μV

Signal-to-noise ratio: 74 dB (mono), 69 dB (stereo) (40 kHz dev.)
Harmonic distortion: 0.3% (mono), 0.5% (stereo) at 1 kHz (40 kHz dev.)
IM distortion: 0.3% (mono), 0.5% (stereo)
Separation: 40 dB (1 kHz)
Frequency response: 40 Hz – 12.5 kHz ±0.5 dB
Selectivity: AEP model: 50 dB (300 kHz)
G-AEP model: 60 dB (300 kHz)
AM suppression ratio: 54 dB
Image response ratio: AEP model: 50 dB
G-AEP model: 80 dB
IF response ratio: AEP model: 90 dB
G-AEP model: 93 dB
Spurious response ratio: 70 dB
Auto tuning threshold: 30 dBf, 18 μV
Output: 410 mV, 4.7 kΩ (40 k dev.)

AM tuner

	MW	LW
Frequency range	522 – 1,611 kHz	144 – 288 kHz
Antenna	Layout-free AM (MW/LW) antenna, with external antenna terminal attached	
IF	450 kHz	
Sensitivity	500 μV/m (at 999 kHz)	700 μV/m (at 230 kHz)
Signal-to-noise ratio	54 dB (50 mV/m)	50 dB (50 mV/m)
Harmonic distortion	0.3%	
Selectivity	35 dB (9 kHz)	

Power and others

Power supply: 220 V AC, 50/60 Hz
Power consumption: 17 W
Dimensions: 430 x 80 x 260 mm (w/h/d)
(17 x 3¼ x 10¼ inches) (w/h/d)
Weight: Approx. 2.9 kg (6 lb 6 oz)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

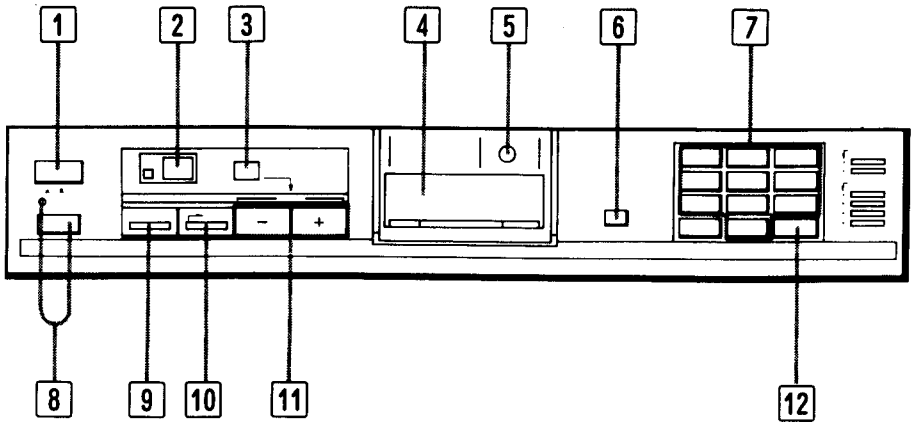
MICROFILM

FM-STEREO/FM-AM TUNER

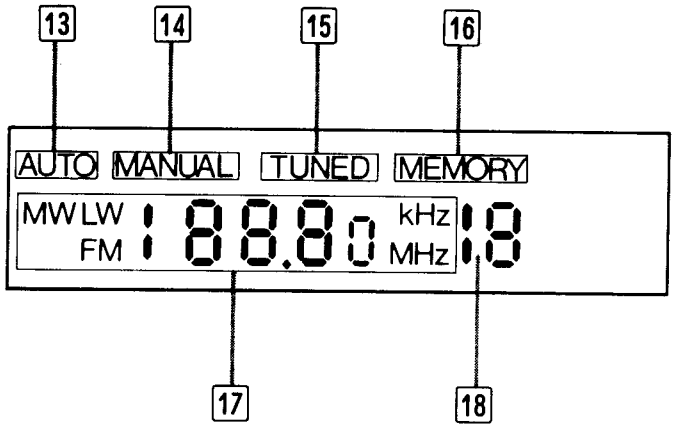
SONY®

AUD

Front panel

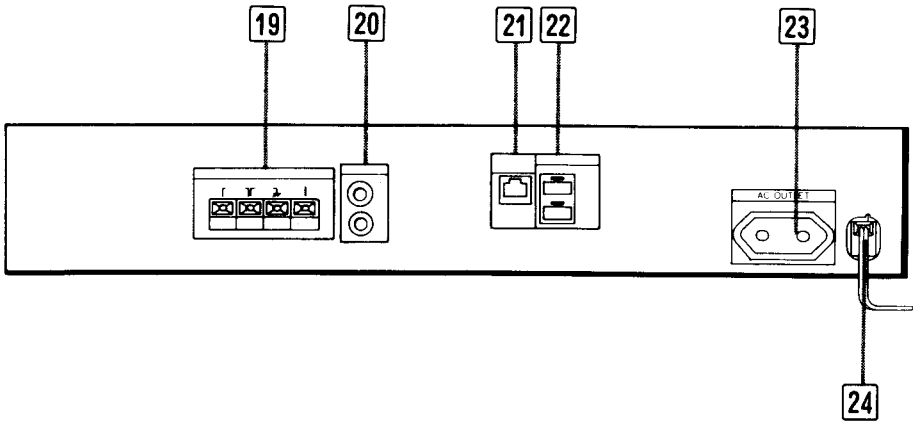


Display window

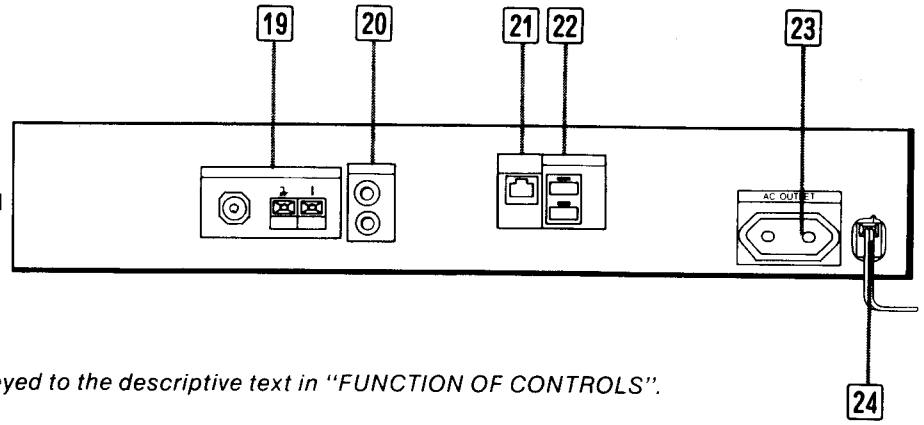


Rear panel

AEP model



G-AEP model



Each number is keyed to the descriptive text in "FUNCTION OF CONTROLS".

FUNCTION OF CONTROLS

Front panel

1 POWER switch

2 REMOTE SENSOR window
Receives the infrared ray command transmitted from the supplied Remote Commander.

3 FM TUNING MODE select button
Press this button to select the manual or auto tuning mode.

4 Band/frequency display
Permits reading the received frequency at a glance from the figures.

5 STEREO indicator
This indicator will light when an FM stereo program of sufficient signal strength is tuned in.

6 MEMORY button
Press to operate memory circuit.
The MEMORY indicator will appear in the display window for a few seconds indicating that the memory circuit is standing by.

7 Number buttons
Press this button to enter the preset number.

8 SYSTEM POWER switch and STANBY indicator
Press this switch to turn the tuner and the connected components on and off. You can operate the switch from a distance with the remote commander and STANBY indicator lights when the switch is depressed.

9 BAND select button
Selects the desired band: FM, MW or LW.
The selected band will be indicated in the band/frequency display.

10 MEMORY SCAN button
Press this button to sequentially receive broadcasting from the preset stations.

11 TUNING buttons
Press either button to change the frequency. Press the left button (–) to go to a lower frequency and the right button (+) to go to a higher. To change the frequency continuously until the desired frequency is received, keep the button pressed. The frequency figures will change rapidly. To change the frequency slowly, successively press and immediately release the button.

12 ENTER button
Press this button to enter data of the preset number.

Display

13 Auto tuning indicator

14 Manual tuning indicator

15 TUNED indicator
This indicator illuminates when a sufficiently strong signal is tuned in.

16 MEMORY indicator
When the MEMORY button is pressed, the MEMORY indicator will appear for a few seconds indicating that the memory circuit is standing by.

17 Band/frequency indicator

18 Preset number indicator

Rear Panel

19 Antenna terminals

20 Output jacks
A jack to be connected to the amplifier.

21 Function control connector (3-pin)
Connect to the SYNC connector of another audio component with the supplied flat cord (3-pin) for remote control of the total audio system.

22 CONTROL S OUT connectors (4-pin)
Connect to the CONTROL S IN or REMOTE IN connector of other Sony audio equipment with the supplied flat 4-pin remote control cord for remote control of the total audio system.

23 AC outlet
For the remote control operation of the total audio system, connect the AC power cord of the amplifier to this outlet.
Do not connect the AC power cord of a television set or a video recorder.

24 AC power cord
Connect to a wall outlet to supply power to the unit.
Connect to the SWITCHED outlet of the timer for timer-activated operation.

REMOTE CONTROL OPERATION (with the supplied RM-S400 remote commander)

By connecting the CONTROL S OUT connector to the CONTROL S IN or REMOTE IN connector of other Sony audio equipment with the supplied flat 4-pin remote control cord, the remote control of the total audio system and direct function are possible.

Direct function

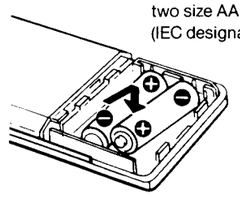
The amplifier operation mode can be changed automatically by simply pressing the operation button of the remote commander. For example, when you want to switch from an FM program to a taped program, press the ▶ button of the TAPE section.
The operation mode of the amplifier is automatically set to TAPE and tape playback starts.

Almost all operation of audio/video equipment

- Power on/off
- Turntable operation
- Selection of memorized stations on the tuner
- CD player operation
- Selection of desired track on the CD player
- Tape deck operation
- Selection of the amplifier function
- Muting on/off
- Volume control

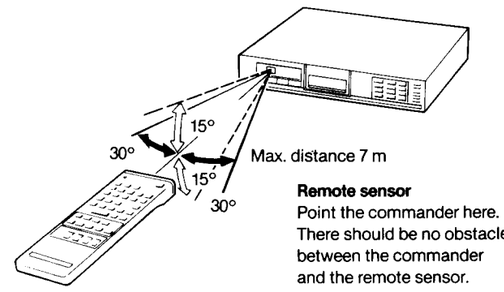
BATTERY INSTALLATION

With normal operation, battery life is approximately 6 months.



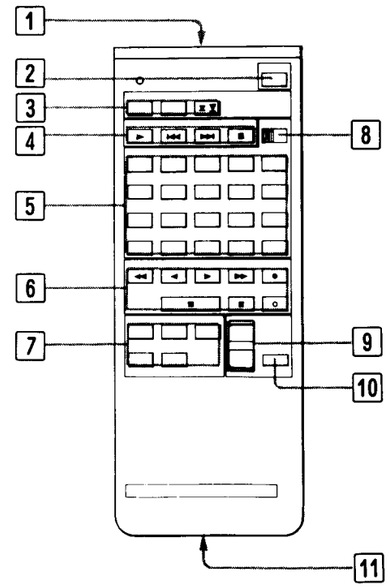
two size AA batteries
(IEC designation R6)

OPERATION



Remote sensor
Point the commander here. There should be no obstacle between the commander and the remote sensor.

FUNCTION OF BUTTONS



1 Infrared ray transmitter

2 POWER button
Press to turn on and off the power of the audio system.

3 PHONO control buttons
START: Press to begin record play.
STOP: Press to stop record play.
▼ ▼ (cueing): Press to lift and lower the tone arm.
Use these buttons while playing.

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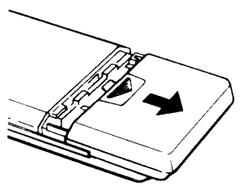
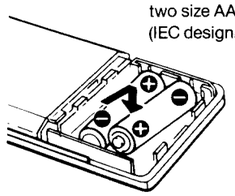
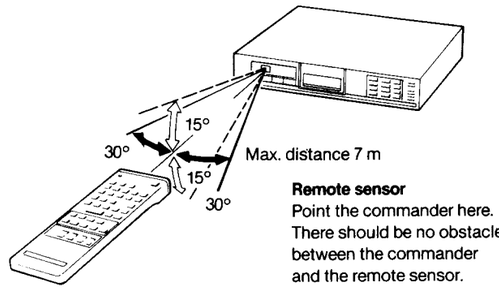




two size AA batteries
(IEC designation R6)

OPERATION



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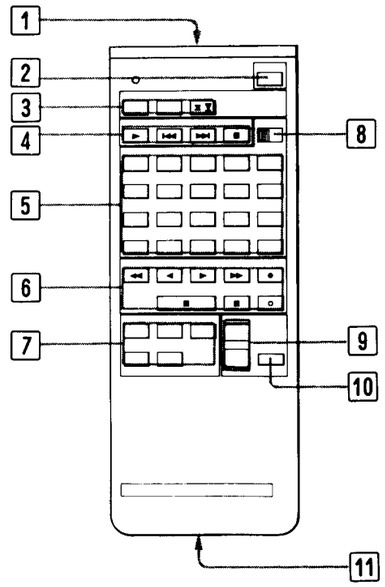
FUNCTION OF BUTTONS



1 Infrared ray transmitter

2 POWER button
Press to turn on and off the power of the audio system.

3 PHONO control buttons
START: Press to begin record play.
STOP: Press to stop record play.
▼ ▼ (cueing): Press to lift and lower the tone arm.
Use these buttons while playing.

4 CD control buttons
▶ (play): Press to begin disc play.
⏮ (back selection): Press to go back to a previous selection.
⏭ (forward selection): Press to skip ahead to another selection.
■ (stop): When this button is pressed, disc play is reset to the beginning of the first selection. and the player is set to the standby mode.

5 TUNER and CD number buttons
Press the appropriate numbered button to recall a memorized radio station (when the TUNER/CD select switch is set to TUNER).
Press the numbered button corresponding to the selection you want to play (when the TUNER/CD select switch is set to CD).

6 TAPE control buttons
◀◀: Rewind, or fast-reverse with auto reverse decks
◀: Reverse play
Press this button while depressing the ● button to start recording (with auto reverse tape decks only)
▶: Forward
Press this button while depressing the ● button to start recording
▶▶: Fast forward
■: Stop
❚❚: Pause
O: Record muting (with tape decks only)
●: Record

7 Audio source function selection buttons
Press the appropriate button to supply the power to the connected equipment or to change the program source.

8 TUNER/CD select switch
Set this switch to switch the operation of the TUNER and CD number buttons 5.
Set the switch to TUNER to recall a memorized radio station.
Set the switch to CD to select the desired track.

9 VOLUME buttons

10 MUTING button
Press this button to reduce the sound level temporarily.

11 Battery compartment (rear)

TO LISTEN TO AN AUDIO PROGRAM SOURCE

Press the START of the PHONO control buttons, any TUNER number button, ▶ of the CD control buttons or ▶ or ◀ of the TAPE control buttons. Playback of the program source will begin.

TO RECORD

Before using the remote commander, insert a cassette in the deck (s).

1 Play the program source.

2 Press the ▶ button while pressing the ● button.

RECORD MUTING

Using the record muting function as follows, a four-second interspacing is automatically provided, thus eliminating unwanted program material such as commercials.

1 Press the O button when the segment you do not want to record begins.
The tape will pause automatically after four seconds.

2 When you want to resume recording, press the ❚❚ button.

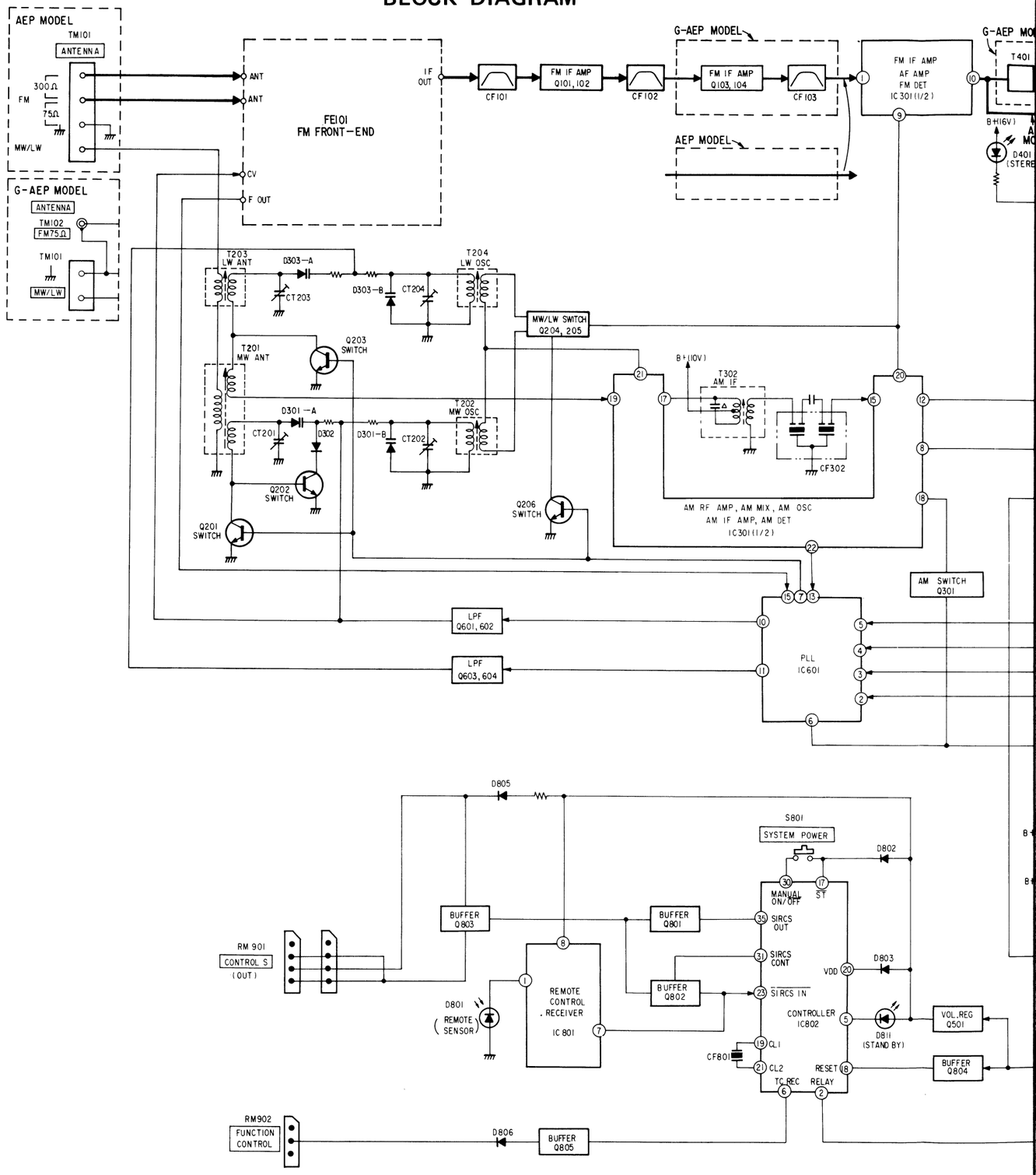
[IC802 (μPD7507HC–033)]

μPD7507HC is a C-MOS 4 bit microcomputer integrating a 4 bit parallel ALU, ROM, RAM, I/O port, 8 bit serial interface and 8 bit programable timer/event counter input 1-chip.

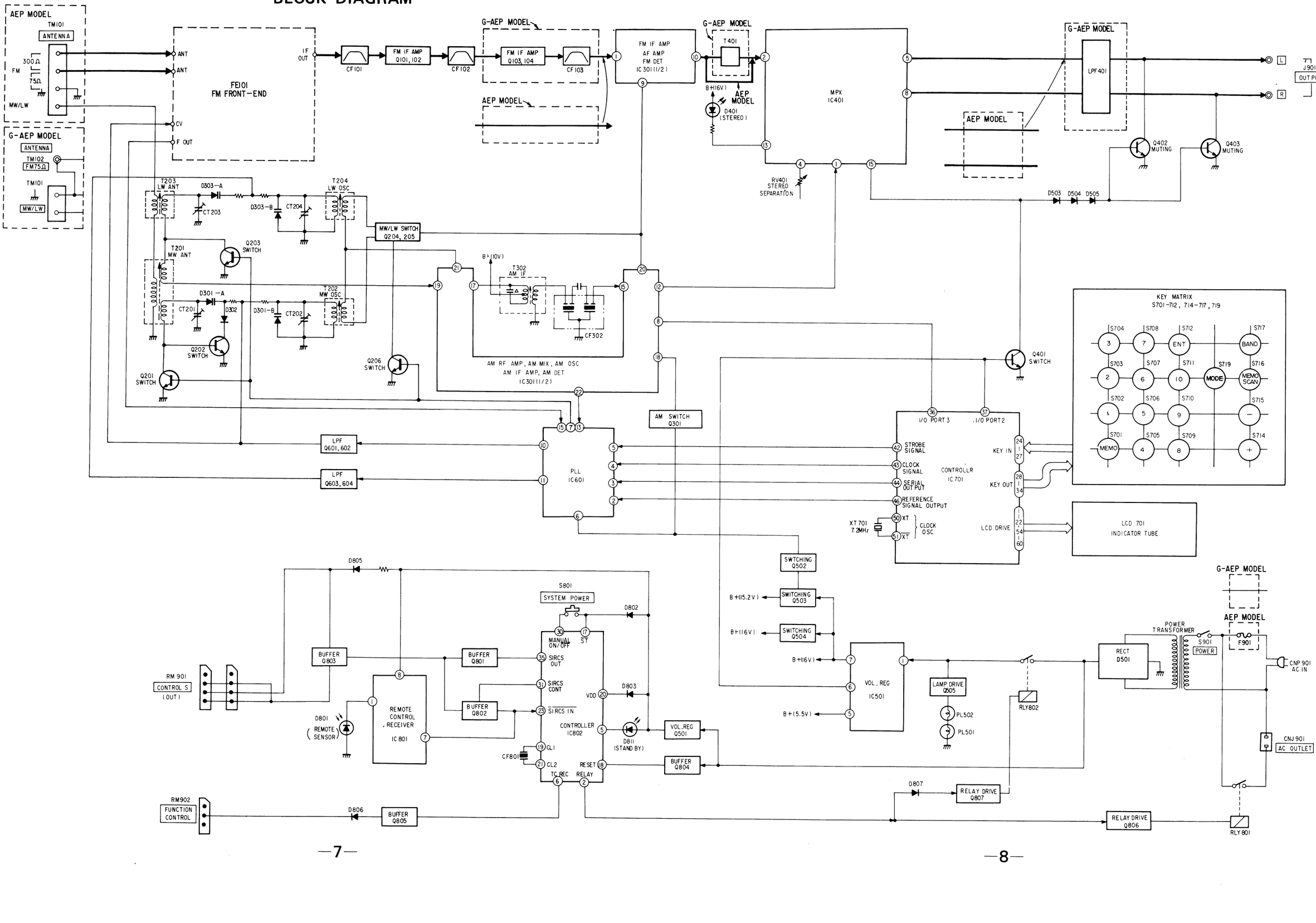
PIN FUNCTIONS

PIN NO.	PIN NAME	I/O	FUNCTION
2	RELAY	OUTPUT	Relay output pin. When the power switch is ON, this pin outputs "H".
4	$\overline{\text{RECEIVED}}$	OUTPUT	RECEIVED LED OUTPUT pin. When remote control signal is received, this pin outputs "L".
5	$\overline{\text{STAND-BY}}$	OUTPUT	STAND BY LED output pin. When the power switch is ON, this pin outputs "L". When remote control signal is received, this pin goes "H".
6	TC REC	INPUT	Function control signal input pin. During the record mode on the tape recorder, this pin inputs "H".
7	TC PLAY	INPUT	Function control signal input pin. Pulse signal of "H" level (⎍) is input to this pin during play mode on the tape recorder.
8	PC	INPUT	Function control signal input pin. Pulse signal of "H" level (⎍) is input to this pin when the player starts to play.
9	CD	INPUT	Function control signal input pin. Pulse signal of "H" level is input to this pin when the CD starts to play.
14	VTR REC	INPUT	Function control signal input pin. During record mode on VTR, this pin inputs "H".
15	VTR PLAY	INPUT	Function control signal input pin. Pulse signal of "H" level (⎍) is input to this pin during play mode on VTR.
16	COMMANDER SWITCH DIRECT 20 STATIONS/ ENTER 10 STATIONS	INPUT	Becomes in "H" in direct 20 station selection mode by using the Remote Commander "RM-S400".
17	$\overline{\text{ST}}$	INPUT	Normally "H". This pin inputs "L" during muting mode (when the tuner operates).
18	RESET	INPUT	Reset input pin. When power switch is ON, pulse signal of "H" level (⎍) is input to this pin.
19, 21	CL1, CL2		System clock connection pin. This pin connects 4 MHz crystal frequency.
20	VDD		Power supply pin.
22	POWER $\overline{\text{ON}}$/OFF	INPUT	When the power switch is OFF, "H" (⎍) pulse signal is input to this terminal.
23	$\overline{\text{SIRCS IN}}$	INPUT	SIRCS signal input pin. Normally "H". When remote control signal received, serial data is input to this terminal.
27	RAMCLR		Normally "H". RAM is cleared at "L".
28	SW2		Normally "H". When function control switch is OFF, this pin goes "L".
29	SW1		When REMOTE switch is A/V, "L". When REMOTE switch is AUDIO, "H".
30	MANUAL ON/$\overline{\text{OFF}}$		Normally "L". When SYSTEM POWER switch is ON, "H".
31	SIRCS CONT	OUTPUT	Normally "L". When SIRCS signal is output, this pin goes "H".
32	$\overline{\text{TUNE SO}}$	OUTPUT	Normally "H". For tuner command output, serial data is output to controller (IC701).
35	SIRCS OUT	OUTPUT	SIRCS signal output pin. When data from the remote controller is input to this pin, the serial data of each operation command to each set is output from this pin.
39	GND		Ground terminal

SECTION 1
BLOCK DIAGRAM



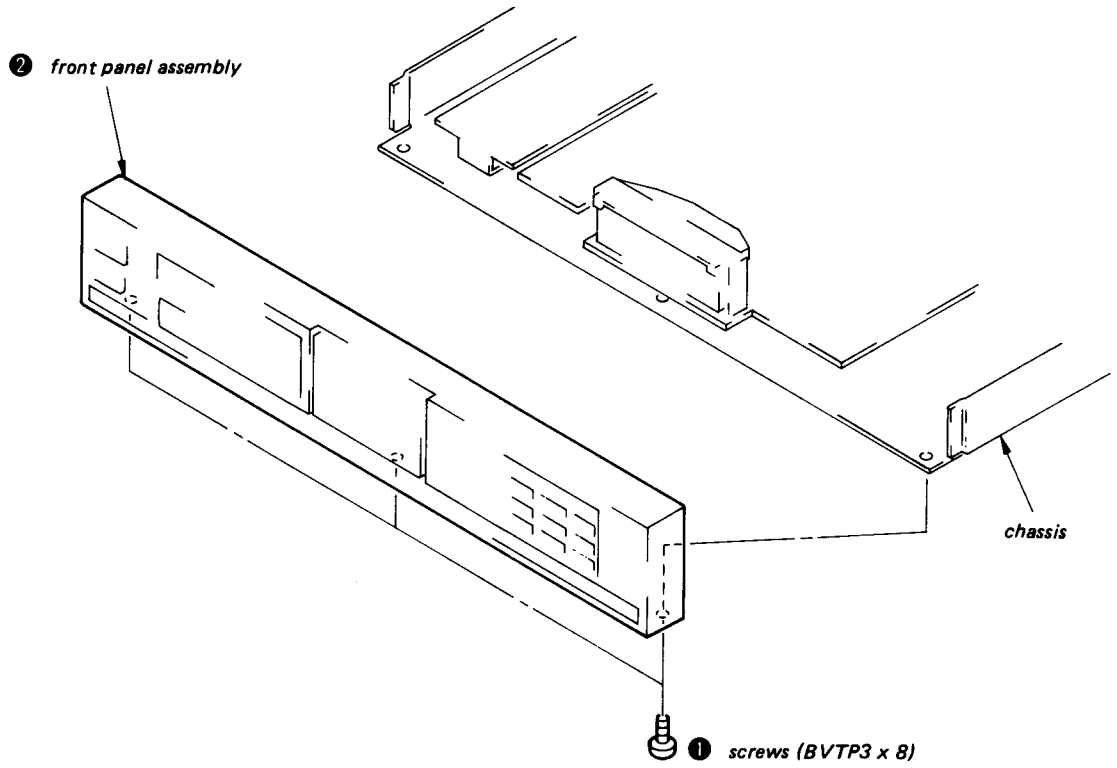
SECTION 1
BLOCK DIAGRAM



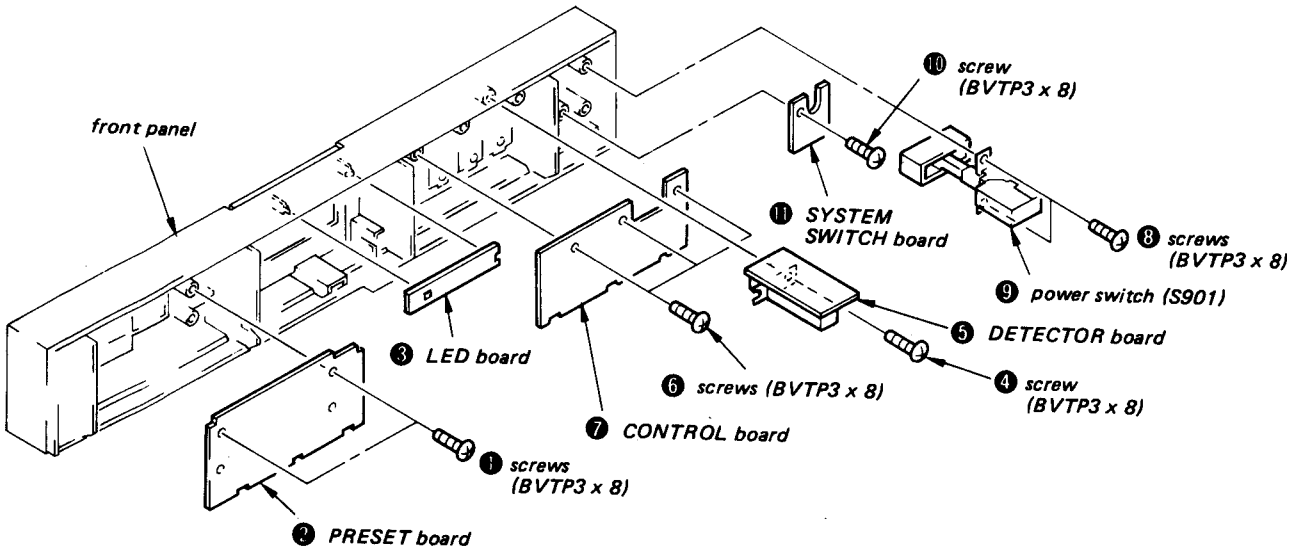
SECTION 2
DISASSEMBLY

FRONT PANEL ASSEMBLY

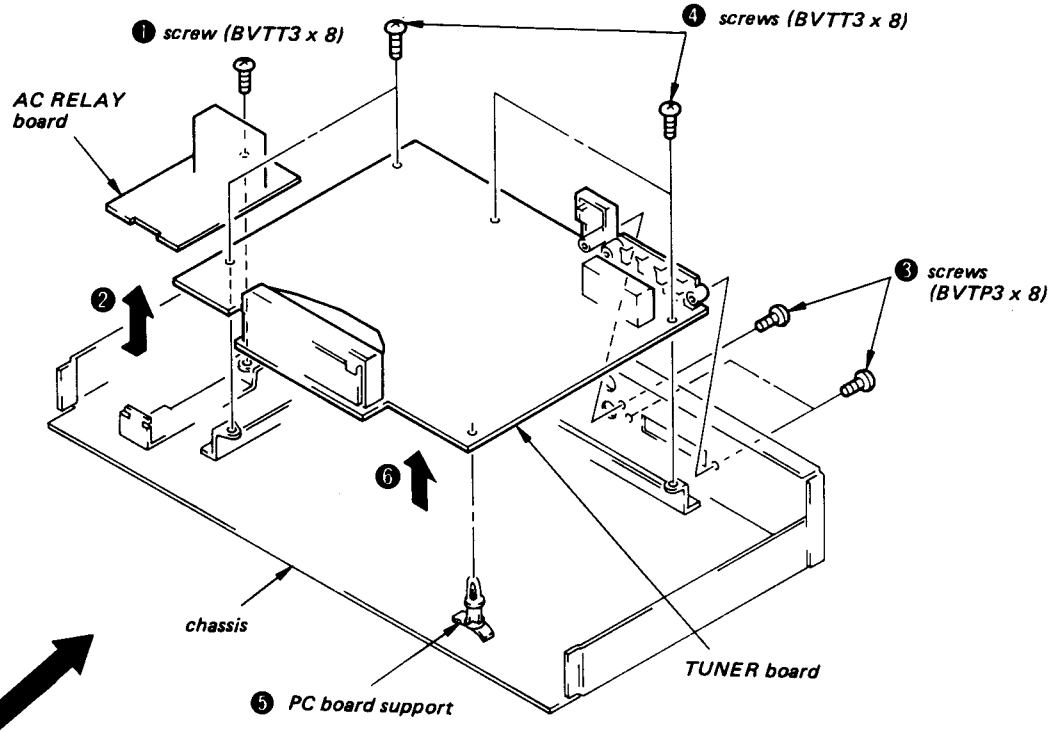
Note: Follow the disassembly procedure in the numerical order given.



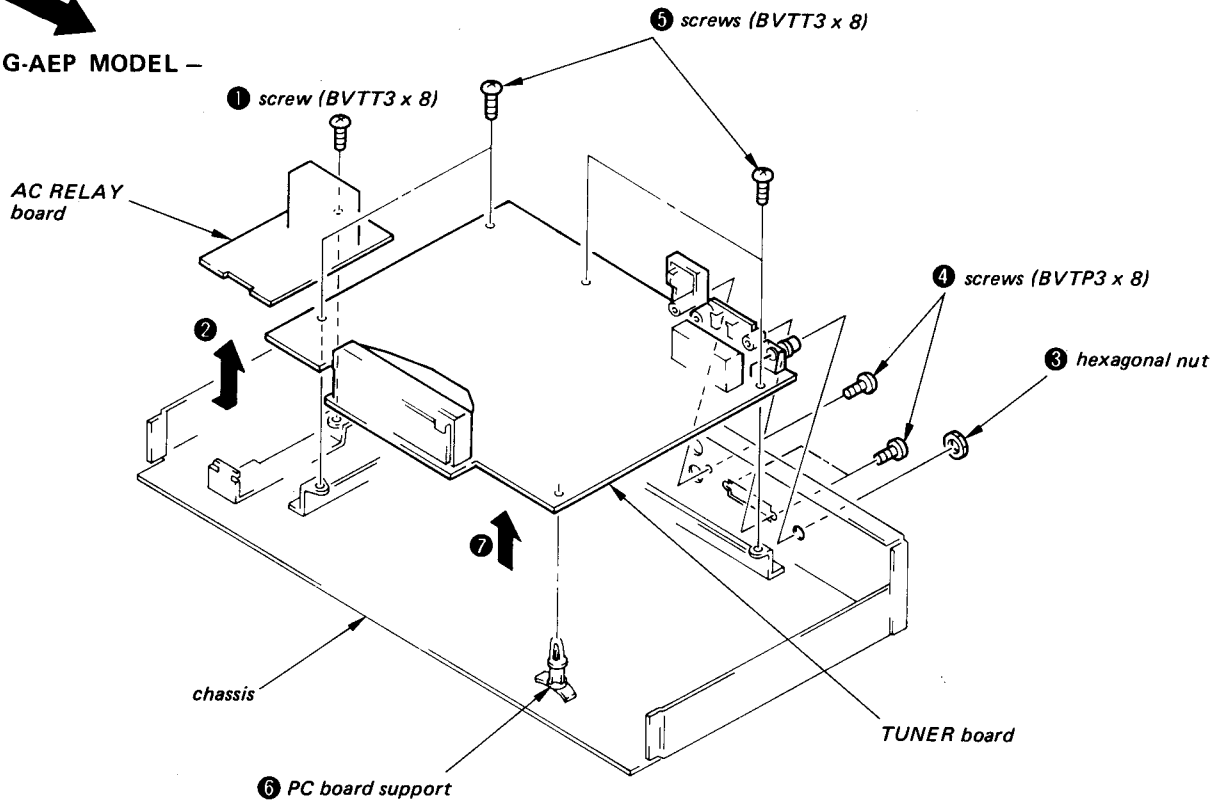
PRESET, CONTROL, LED, SYSTEM SWITCH, AND DETECTOR BOARDS



TUNER AND AC RELAY BOARDS
– AEP MODEL –



– G-AEP MODEL –



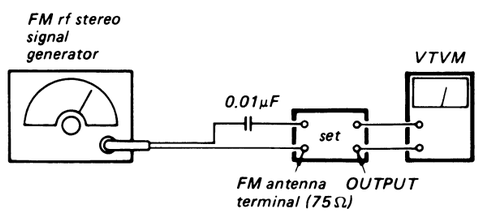
SECTION 3
ADJUSTMENTS

FM SECTION

FM Stereo Separation Adjustment

Setting:
BAND SELECTOR switch: FM

Procedure:



Carrier frequency: 98 MHz
Output level: 1 mV (60 dB)
Mode: Stereo
Modulation:
Audio (1 kHz): 16.25 kHz deviation (40%)
Pilot (19 kHz): 7.5 kHz deviation (20%)
Sub-channel (38 kHz): 16.25 kHz deviation (40%)

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV401 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV401 for minimum reading.

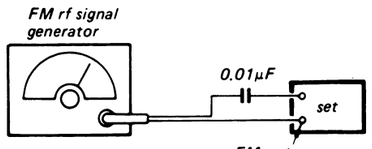
L-CH Stereo separation: Ⓐ – Ⓑ
R-CH Stereo separation: Ⓒ – Ⓓ

Adjust RV401 so that the separations of both channels should be equal.

FM NULL Adjustment

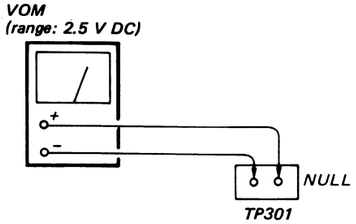
Setting:
BAND SELECTOR switch: FM

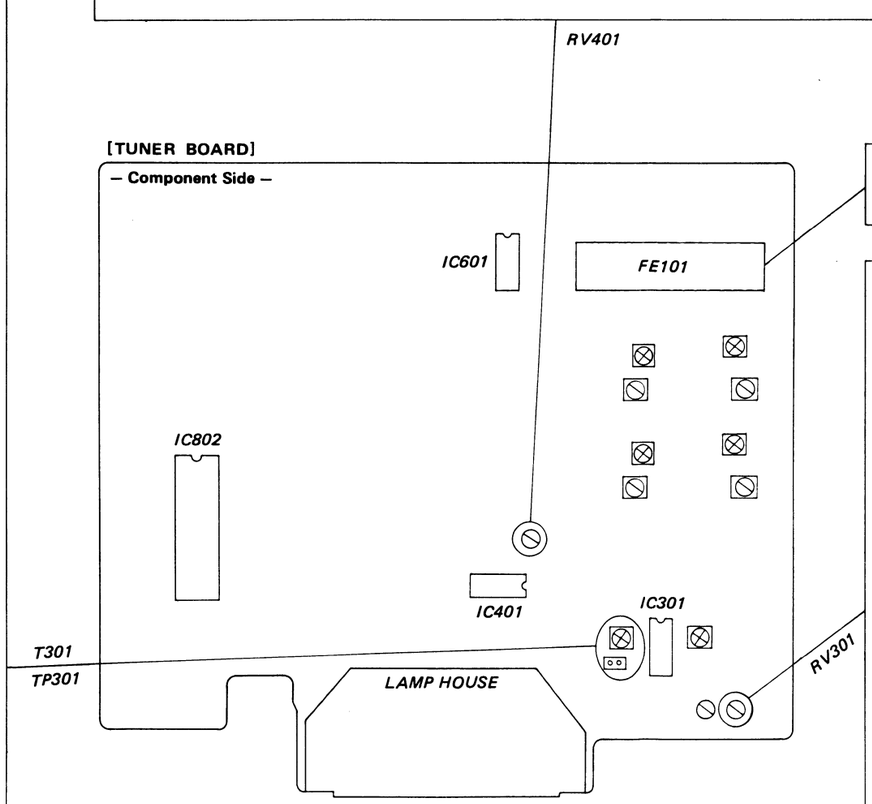
Procedure:



Carrier frequency: 98 MHz
Output level: 1 mV (60 dB)
Modulation: 1 kHz, 40 kHz deviation (100%)

1. Tune the set to 98 MHz.
2. Adjust T301 for a 0 V reading on the VOM.



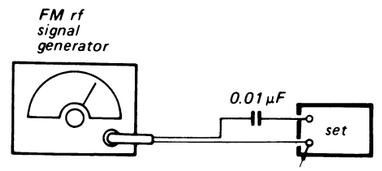


The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.

TUNED Indication Lighting Level Adjustment

Setting:
BAND SELECTOR switch: FM

Procedure:



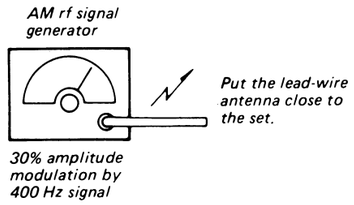
Carrier frequency: 98 MHz
Modulation: 1 kHz, 40 kHz deviation (100%)
Output level: 17.9 µV (25 dB)

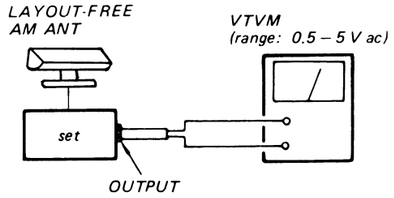
1. Tune the set to 98 MHz.
2. Adjust RV301 so that the TUNED indicator goes on.

LW/MW SECTION **Adjust LW section first.**

Setting:

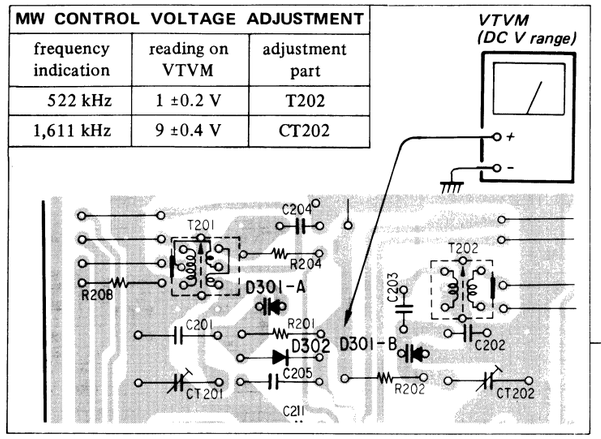
Band Selector: LW/MW
AM tuning interval: 9kHz



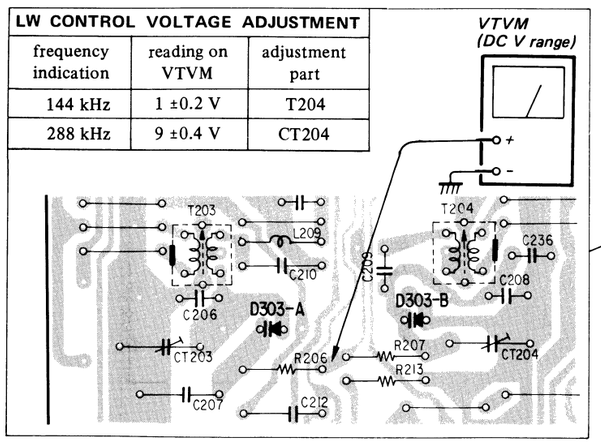


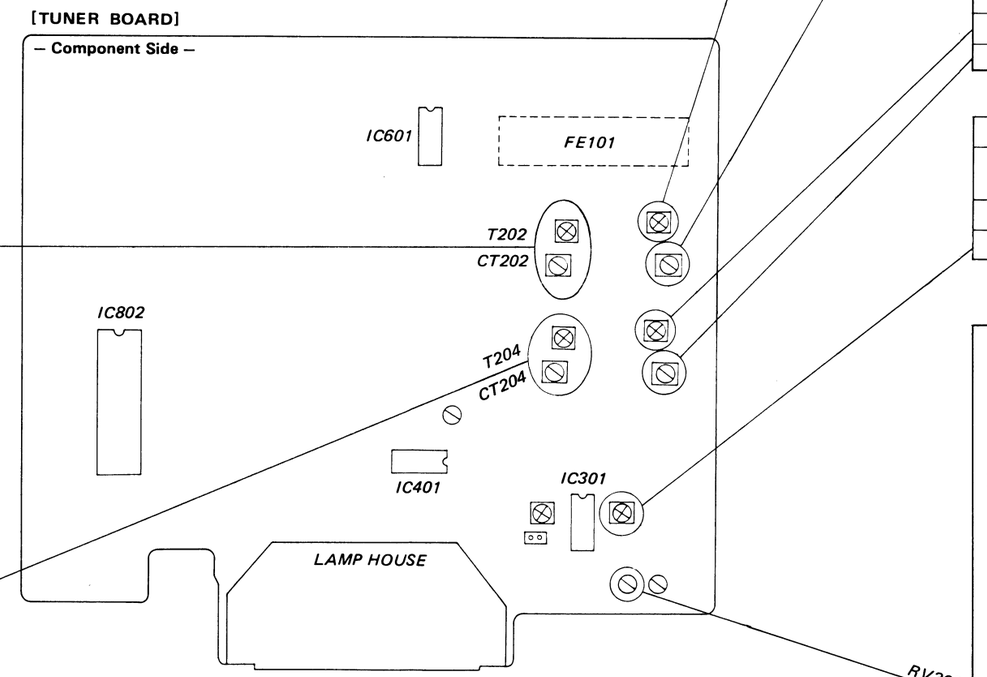
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

MW CONTROL VOLTAGE ADJUSTMENT		
frequency indication	reading on VTVM	adjustment part
522 kHz	1 ±0.2 V	T202
1,611 kHz	9 ±0.4 V	CT202



LW CONTROL VOLTAGE ADJUSTMENT		
frequency indication	reading on VTVM	adjustment part
144 kHz	1 ±0.2 V	T204
288 kHz	9 ±0.4 V	CT204





MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
603 kHz	1,404 kHz
T201	CT201

LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T203	162 kHz
CT203	270 kHz

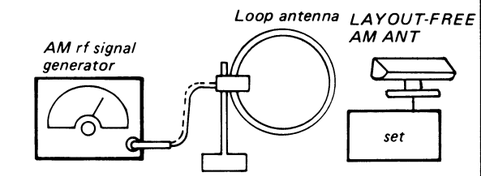
AM IF ALIGNMENT
Adjust for a maximum reading on VTVM.
SG: 450 kHz
T302

TUNED Indication Lighting Level Adjustment

Setting:

BAND SELECTOR switch: LW

Procedure:



Carrier frequency: *999kHz*
Modulation: *400 Hz, 30% modulation*

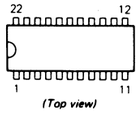
1. Tune the set to 216 kHz.
2. Set the loop antenna so that the AM antenna input level becomes 2.8 kμV/m.
3. Adjust RV302 so that the TUNED indicator goes on.

SECTION 4
DIAGRAMS

● Semiconductor Lead Layouts

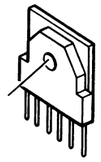
CX20106
CX20106A

LA1265

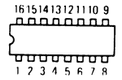


LA1267
LA3401

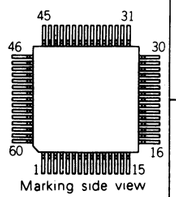
LA5666



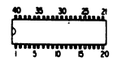
TC9172P



TC9302AF-018



μPD7507HC-033

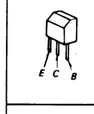


2SA1048
2SA1115
2SC2458
2SC2603
2SC2603F
2SC2669
DTA144ES
DTC14ES

2SA1175
2SC2785

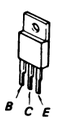
2SA733
2SA933
2SC380TMY
2SC1740
2SC3112B
2SC945

2SD774



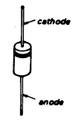
2SD789

2SD880

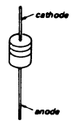


2SK30AGR3

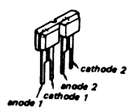
1S953
HZ6C2L
HZ6C3L



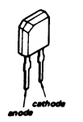
1SS202-1



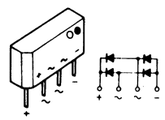
KV1236Z



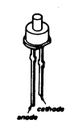
PH302B



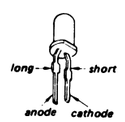
SIVB10
SIVB20



GL2HY5
GL2PG5



SEL 2210R

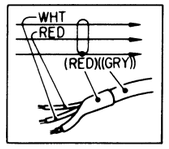


SEL2210W-C

4-1. MOUNTING DIAGRAM — *Conductor Side* —

Note on Mounting Diagram:

- Color code or sleeving over the end of the jacket.



- ○— : parts extracted from the component side.
- ■ : part mounted on the conductor side.

Note on Schematic Diagram:

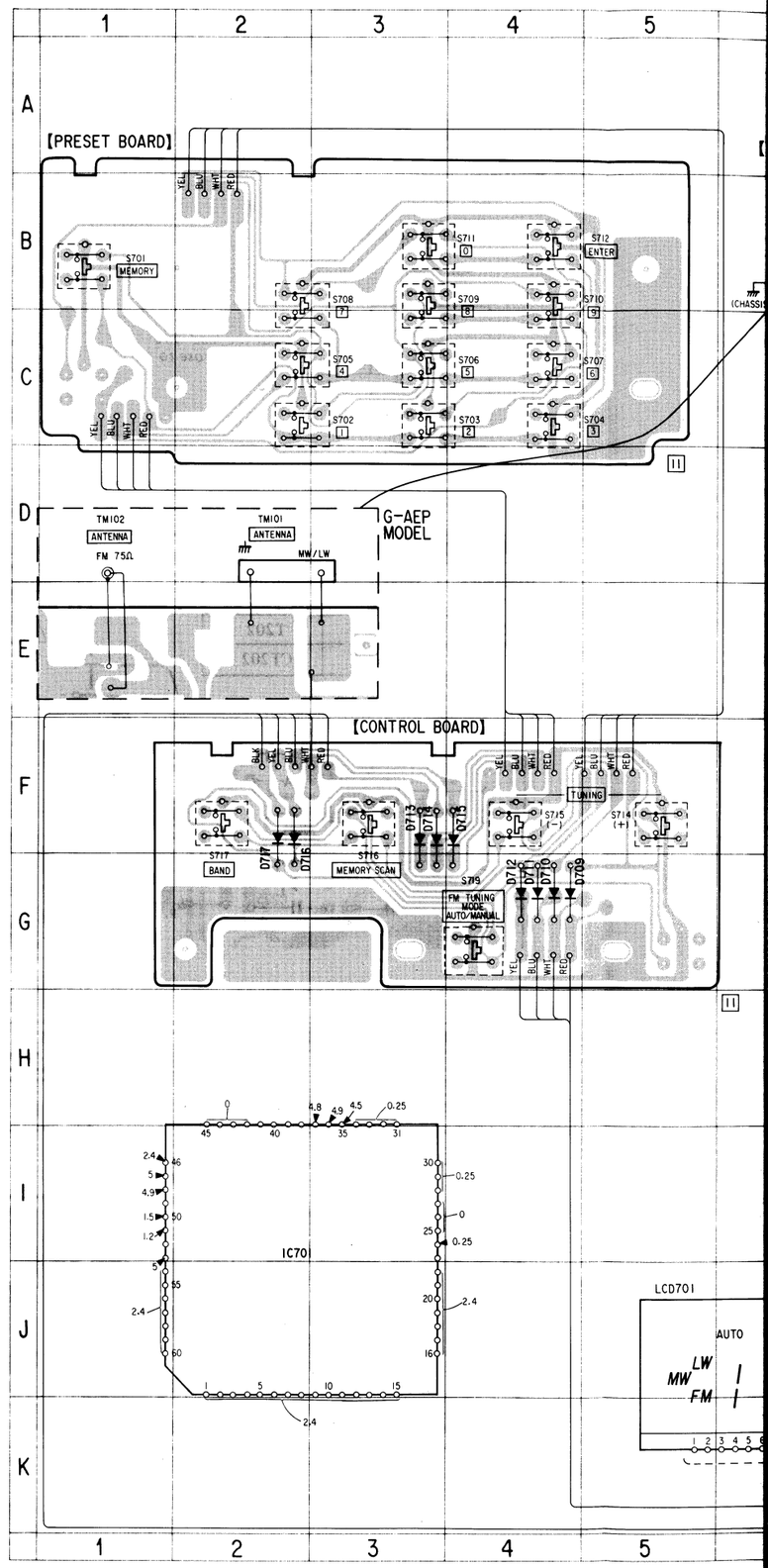
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/6 W or less unless otherwise specified.
- ➡ : signal path.
- △ : internal component.
- ⊣NW⊢ : nonflammable resistor.
- ▬ : B+ bus.
- ▭ : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal (detuned) conditions with a VOM (50 kΩ/V).
  no mark : FM or common
  ( ) : MW (( )) : LW
- Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with respect to ground with oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Switch

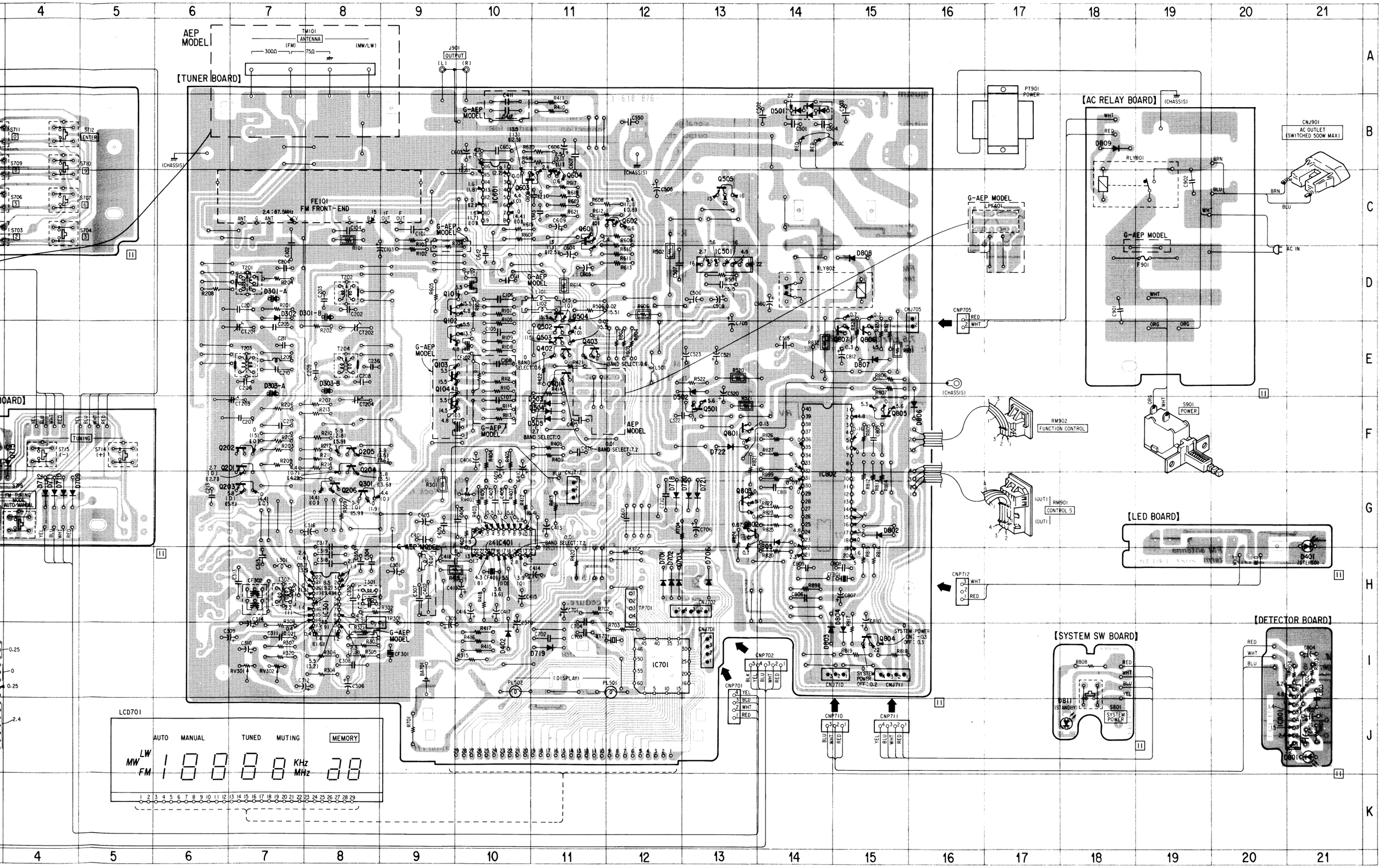
Ref. No.	Switch	Position
S701	MEMORY	OFF
S702	1	OFF
S703	2	OFF
S704	3	OFF
S705	4	OFF
S706	5 (10 key)	OFF
S707	6 (10 key)	OFF
S708	7 (10 key)	OFF
S709	8 (10 key)	OFF
S710	9 (10 key)	OFF
S711	0 (10 key)	OFF
S712	ENTER	OFF
S714	TUNING: +	OFF
S715	TUNING: –	OFF
S716	MEMORY SCAN	OFF
S717	BAND	FM
S719	FM TUNING MODE	AUTO
S801	SYSTEM POWER	OFF
S901	POWER	OFF

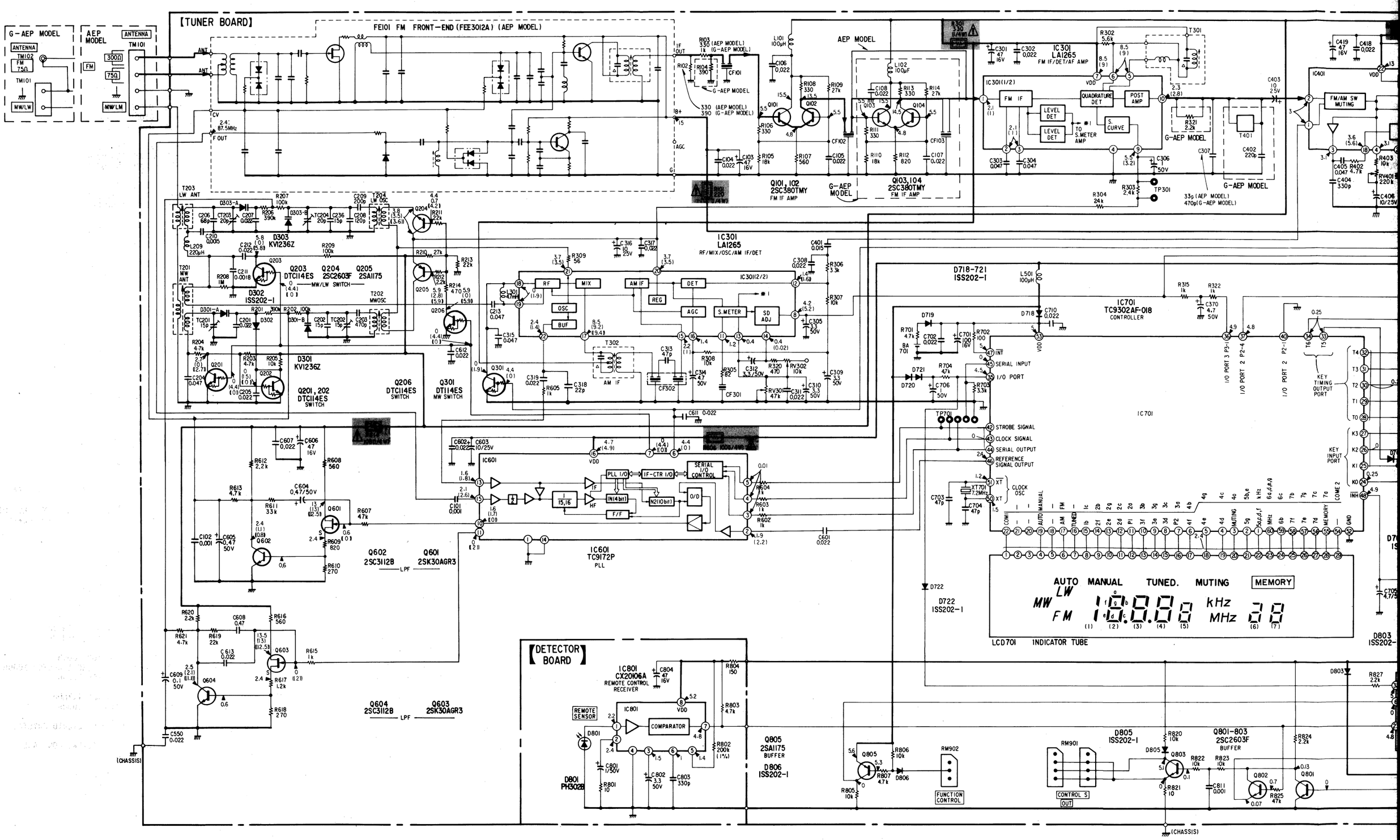
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

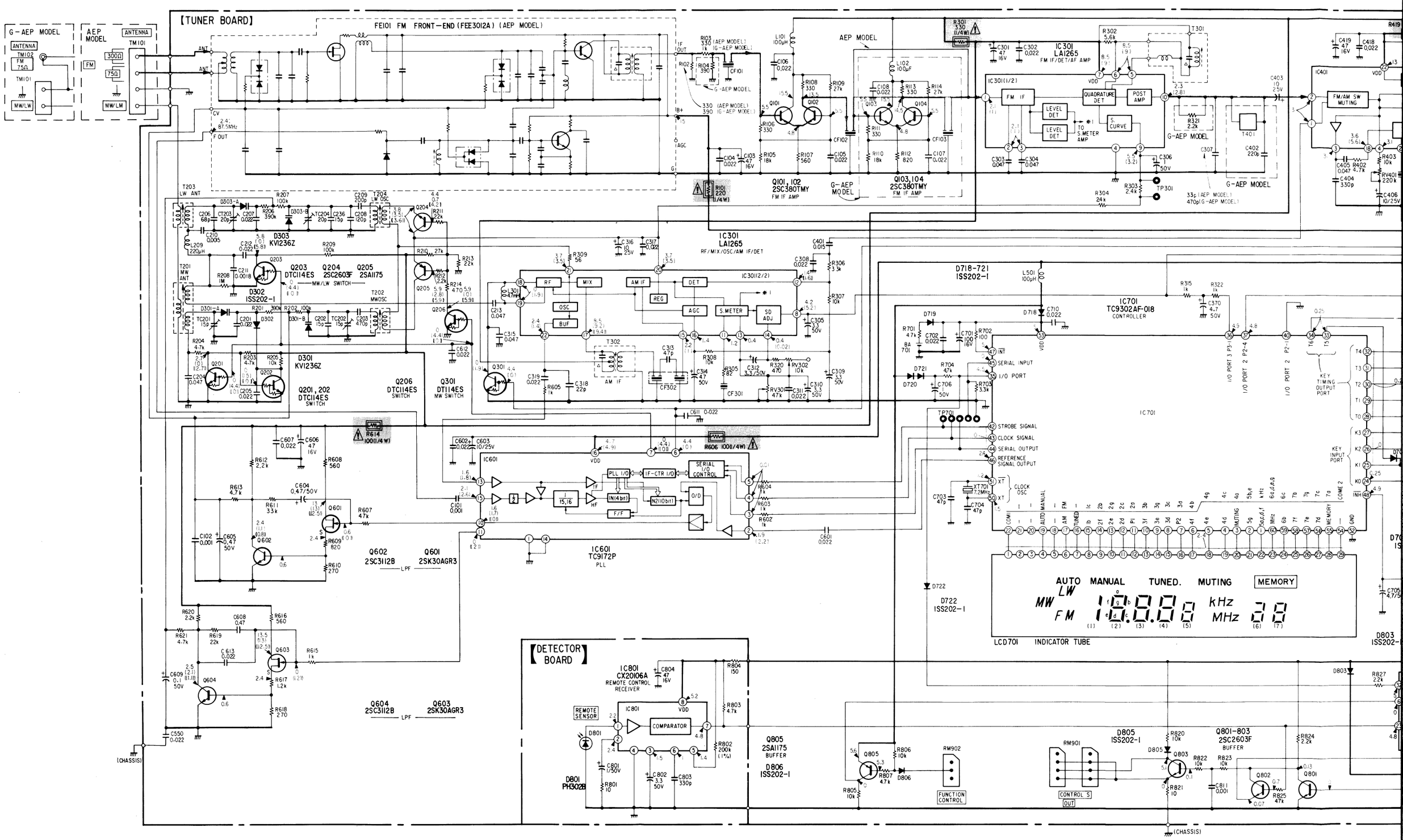
●SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D301-A	D-7	IC301	H-8
D301-B	D-8	IC401	G-10
D302	D-7	IC501	D-13
D303-A	E-7	IC601	C-10
D303-B	E-8	IC701	I-12
D401	G-21	IC801	J-21
D402	I-10	IC802	G-14
D501	B-14		
D502	E-13	Q101	D-10
D503	F-11	Q102	E-10
D504	F-11	Q103	E-10
D505	F-11	Q104	F-10
D701	H-12	Q201	G-7
D702	H-12	Q202	F-7
D703	H-12	Q203	G-7
D706	H-13	Q204	G-8
D709	G-4	Q205	F-8
D710	G-4	Q206	G-8
D711	G-4	Q301	G-8
D712	G-4	Q401	E-11
D713	F-3	Q402	E-11
D714	F-3	Q403	E-11
D715	F-4	Q501	F-13
D716	F-2	Q502	E-11
D717	F-2	Q503	E-11
D718	G-12	Q504	D-11
D719	I-11	Q505	C-13
D720	G-13	Q601	C-11
D721	G-13	Q602	C-12
D722	F-13	Q603	C-10
D801	J-21	Q604	C-11
D802	G-15	Q801	F-13
D803	I-14	Q802	G-13
D804	I-15	Q803	G-13
D805	G-14	Q804	I-15
D806	F-16	Q805	F-15
D807	E-15	Q806	E-15
D808	D-15	Q807	E-15
D809	B-18		
D811	J-18		




AEP MODEL
【TUNER BOARD】
TM101 ANTENNA
(FM) 300Ω 75Ω (MW/LW)
J901 OUTPUT (L) (R)
FE101 FM FRONT-END
IC601
G-AEP MODEL
AEP MODEL
IC501
IC802
IC401
IC701
Q505
Q501
Q801
Q601
Q602
Q603
Q604
Q504
Q502
Q503
Q402
Q403
Q101
Q102
Q103
Q104
Q202
Q203
Q204
Q205
Q206
Q301
Q302
Q303
Q304
Q305
Q306
Q307
Q308
Q309
Q310
Q311
Q312
Q313
Q314
Q315
Q316
Q317
Q318
Q319
Q320
Q321
Q322
Q323
Q324
Q325
Q326
Q327
Q328
Q329
Q330
Q331
Q332
Q333
Q334
Q335
Q336
Q337
Q338
Q339
Q340


【TUNER BOARD】
FE101 FM FRONT-END (FEE3012A) (AEP MODEL)
G-AEP MODEL
AEP MODEL
ANTENNA
TM102 FM 75Ω
TM101
MW/LW
300Ω
75Ω
MW/LW
FM
IC301 LA1265
FM IF/DET/AF AMP
IC301(1/2)
FM IF
LEVEL DET
QUADRATURE DET
POST AMP
S. CURVE
TO S METER AMP
Q101, 102 2SC380TMY FM IF AMP
Q103,104 2SC380TMY FM IF AMP
IC401
FM/AM SW MUTING
IC301 LA1265 RF/MIX/OSC/AM IF/DET
IC301(1/2)
RF
MIX
OSC
BUF
AM IF
REG
DET
AGC
S.METER
SD ADJ
D303 KV1236Z
D302 ISS202-1
D301 KV1236Z
Q203 DTC114ES
Q204 2SC2603F
Q205 2SA1175
Q201, 202 DTC114ES SWITCH
Q206 DTC114ES SWITCH
Q301 DTC114ES MW SWITCH
D718-721 ISS202-1
IC701 TC9302AF-018 CONTROLLER
I/O PORT
SERIAL INPUT
STROBE SIGNAL
CLOCK SIGNAL
SERIAL OUTPUT
REFERENCE SIGNAL OUTPUT
KEY TIMING OUTPUT PORT
KEY INPUT PORT
CLOCK OSC
AUTO MANUAL TUNED. MUTING MEMORY
MW LW FM
kHz MHz
LCD701 INDICATOR TUBE
D722 ISS202-1
D803 ISS202-1
IC601 TC9172P PLL
SERIAL I/O CONTROL
PLL I/O
IF-CTR I/O
IN(4 bit)
N2(10 bit)
F/F
Q602 2SC3112B
Q601 2SK30AGR3
Q604 2SC3112B
Q603 2SK30AGR3
LPF
【DETECTOR BOARD】
IC801 CX20106A REMOTE CONTROL RECEIVER
REMOTE SENSOR
D801 PH302B
Q805 2SA1175 BUFFER
D806 ISS202-1
FUNCTION CONTROL
RM902
RM901
CONTROL S OUT
D805 ISS202-1
Q801-803 2SC2603F BUFFER
(CHASSIS)


【TUNER BOARD】
FE101 FM FRONT-END (FEE3012A) (AEP MODEL)
G-AEP MODEL
AEP MODEL
ANTENNA
TM102 FM 75Ω
TM101
MW/LW
300Ω
75Ω
MW/LW
FM
ANT
CV
2.4 67.5MHz
F OUT
IF OUT
B+
AGC
R103 330 (AEP MODEL) 1k (G-AEP MODEL)
R102
R104 390
CF101
G-AEP MODEL
330 (AEP MODEL) 390 (G-AEP MODEL)
L101 100μH
R108 330
R109 27k
Q101
Q102
R106 330
R105 18k
R107 560
C104 0.022
C103 47 16V
CF102
C105 0.022
AEP MODEL
L102 100μF
C108 0.022
R113 330
R114 27k
Q103
Q104
R111 330
R110 18k
R112 820
C107 0.022
CF103
R301 330 (1/4W)
R101 220 (1/4W)
Q101, 102 2SC380TMY FM IF AMP
G-AEP MODEL
Q103,104 2SC380TMY FM IF AMP
C301 47 16V
C302 0.022
IC301 LA1265 FM IF/DET/AF AMP
IC301(1/2)
FM IF
LEVEL DET
LEVEL DET
QUADRATURE DET
POST AMP
S. CURVE
TO S METER AMP
R302 5.6k
T301
R321 2.2k
G-AEP MODEL
T401
C307
C402 220p
C303 0.047
C304 0.047
C306 50V
R303 2.4k
R304 24k
TP301
33p (AEP MODEL) 470p (G-AEP MODEL)
C403 10 25V
IC401
FM/AM SW MUTING
C419 47 16V
C418 0.022
C405 0.047
R402 4.7k
C404 330p
R403 10k
RV401 220k
C406 10/25V
R419
T203 LW ANT
T204 LW OSC
D303-A
D303-B
CT203 20p
CT204 20p
C206 68p
C207 0.022
C236 15p
C208 120p
C209 200p
R207 100k
R206 390k
C210 0.0015
L209 220μH
D303 KV1236Z
C212 0.022
R209 100k
T201 MW ANT
C211 0.0018
R208 1M
Q203
Q204
Q205
Q203 DTC114ES
Q204 2SC2603F
Q205 2SA1175
MW/LW SWITCH
D302 ISS202-1
T202 MWOSC
D301-A
D301-B
TC201 15p
C201 0.022
D302
R201 390k
R202 100k
C202 15p
TC202 15p
C203 470p
R204 4.7k
R203 4.7k
R205 10k
Q201
Q202
C204 0.047
C205 0.022
D301 KV1236Z
Q201, 202 DTC114ES SWITCH
Q206 DTC114ES SWITCH
Q301 DTC114ES MW SWITCH
R210 27k
R211 22k
R212 22k
R213 22k
Q204
Q205
R214 470
Q206
C614 0.022
C611 0.022
R614 100Ω (1/4W)
R606 100Ω (1/4W)
C602 0.022
C603 10/25V
IC601
PLL I/O
IF-CTR I/O
SERIAL I/O CONTROL
IN (4 bit)
N2 (10 bit)
O/D
F/F
1/15,16
IF
HF
R604 1k
R603 1k
R602 1k
C601 0.022
C101 0.001
R607 47k
C607 0.022
C606 47 16V
R608 560
R612 2.2k
R613 4.7k
R611 33k
C604 0.47/50V
C102 0.001
C605 0.47 50V
R609 820
R610 270
Q601
Q602
Q602 2SC3112B
Q601 2SK30AGR3
LPF
IC601 TC9172P PLL
C316 10 25V
C317 0.022
IC301 LA1265 RF/MIX/OSC/AM IF/DET
RF
MIX
OSC
BUF
AM IF
REG
DET
AGC
S.METER
SD ADJ
IC301(2/2)
R309 56
L301 47μH
C213 0.047
C315 0.047
T302
AM IF
C313 47p
CF302
C314 47 50V
R308 10k
R305 82
CF301
C312 3.3/50V
R320 470
RV302 10k
RV303 47k
C311 0.022
C310 3.3 50V
C309 3.3 50V
C401 0.015
C308 0.022
R306 3.3k
R307 10k
C305 3.3 50V
C319 0.022
R605 1k
C318 22p
Q301
D718-721 ISS202-1
L501 100μH
D719
D718
C710 0.022
IC701 TC9302AF-018 CONTROLLER
R315 1k
R322 1k
C370 4.7 50V
R701 47k
C702 0.022
C701 100 16V
R702 100
D721
D720
R704 47k
C706 50V
R703 3.3k
TP701
INT
SERIAL INPUT
I/O PORT
STROBE SIGNAL
CLOCK SIGNAL
SERIAL OUTPUT
REFERENCE SIGNAL OUTPUT
I/O PORT 3 P3-1
I/O PORT 2 P2-4
I/O PORT 2 P2-1
KEY TIMING OUTPUT PORT
KEY INPUT PORT
XT701 7.2MHz
C703 47p
C704 47p
CLOCK OSC
COM1 AUTO MANUAL AM FM TUNED MUTING MEMORY COM2 GND
AUTO MANUAL TUNED. MUTING MEMORY
MW LW FM
kHz MHz
LCD701 INDICATOR TUBE
D722 ISS202-1
R614 100Ω (1/4W)
R606 100Ω (1/4W)
R620 2.2k
R621 4.7k
C608 0.47
R619 22k
C613 0.022
R616 560
R615 1k
Q603
Q604
C609 0.1 50V
R617 1.2k
R618 270
C550 0.022
Q604 2SC3112B
Q603 2SK30AGR3
LPF
【DETECTOR BOARD】
IC801 CX20106A REMOTE CONTROL RECEIVER
REMOTE SENSOR
COMPARATOR
C804 47 16V
R804 150
R803 4.7k
R802 200k (1%)
C801 1/50V
R801 10
C802 3.3 50V
C803 330p
D801 PH302B
Q805 2SA1175 BUFFER
D806 ISS202-1
R805 10k
R806 10k
R807 4.7k
D806
RM902
FUNCTION CONTROL
RM901
CONTROL S OUT
D805 ISS202-1
Q801-803 2SC2603F BUFFER
R820 10k
R822 10k
R823 10k
R821 10
C811 0.001
Q803
Q802
Q801
R824 2.2k
R825 47k
D803 ISS202-
R827 2.2k
(CHASSIS)

【LED BOARD】
D401 SEL2210W-C
D401 STEREO
R419 120Ω(4W)
R413 1.2kΩ(4W)
C419 47 16V
C418 0.022
C403 10 25V
C402 220p
T401
G-AEP MODEL

IC401 LA3401 MPX
VDD
BIAS
FM/AM SW MUTING
PLL
LAMP TRIGGER
FM/AM SW LOGIC MUTE ON/OFF
VCC ON/OFF
C404 330p
C405 0.047
R402 4.7k
R403 10k
RV401 220k
CF401
C406 10/25V
C416 0.22 50V
R418 5.6k
C417 3.3/50V
C415 1/50V
D402
C414 1 50V
R412 100k
R414 22k
C413 10 25V
R405 180k
R406 150k
R407 150k
C407 330p
C408 330p
C409 3.3/50V
C410 3.3 50V
R404 180k
R408 4.7k
R409 4.7k
C425 0.0022
C426 0.0022
R410 4.7k
R411 4.7k
LPF 401 (1/2)
Q402, 403 2SC2603F MUTING
Q402
Q403
R422 33k
R421 33k
C412 0.001
C411 0.001
D505
D504
D503
D503-505 1SS202-1 G-AEP MODEL
J901
L
OUTPUT
R
D402 1SS202-1
R415 4.7k
R416 1k
R417 8.2k

FE101
FM FRONTEND FEE 4013A
(G-AEP MODEL)
ANT
ANT
GND
F OUT
CV
B+
IF

【CONTROL BOARD】
D709-717 1SS202-1
D717
D716
D715
D714
D713
D712
D711
D710
D709
D703
D706
D702
D701
KEY INPUT PORT
KEY TIMING OUTPUT PORT
I/O PORT 3 P3-1
I/O PORT 2 P2-4
I/O PORT 2 P2-1
S704 3
S708 7
S712 ENTER
S717 BAND
S703 2
S707 6
S711 10
S716 MEMORY SCAN
S719 FM TUNING MODE
S702 1
S706 5
S710 9
S715 TUNING(−)
S701 MEMORY
S705 4
S709 8
S714 TUNING(+)
D701-703,706 1SS202-1
【PRESET BOARD】
C705 4.7/50V
TUNING
MEMORY
kHz
MHz

Q401 DTC114ES SWITCH
Q401
R420 10k
Q504 DTA144ES FM B+ SWITCHING
Q503 2SC2603F AM B+ SWITCHING
Q502 DTC114ES SWITCHING
R506 10k
C506 10 25V
C507 0.022
C510 0.022
C509 1/50V
IC501 LA5666 VOL.REG
REG
REG
CONTROL
RESET
Q505 2SD880 LAMP DRIVE
Q807 2SC2603F RELAY DRIVE
R502 3.6 (2W)
R504 47k
C560 10 50V
(DISPLAY)
PL502
PL501
RLY802
D808
R832 220 (2W)
R831 150 (2W)
D808,809 1SS202-1
C903 0.022
G-AEP MODEL
D807 1SS202-1
C812 47 16V
R828 10k
R829 10k
R830 100k
Q806
D501 S1VB20
C501 0.01
C504 0.01
C502 0.01
C503 0.01
C505 1000 35V
Q806 2SC2603F RELAY DRIVE
C515 0.022
【POWER SW BOARD】
RLY801
D809
C902 0.01 400V
C901 0.01 400V
G-AEP MODEL
F901 T3.15A
AEP MODEL
PT901 POWER
S901 POWER
OFF
ON
CNJ901 AC OUTLET (SWITCHED 500W MAX)
CNP901 AC IN

D803 1SS202-1
IC802 μPD7507HC-033 CONTROLLER
TUNE SO
TC REC
SIRCS IN
SIRCS CONT
SIRCS OUT
VDD
CL1
CL2
RESET
MANUAL ON/OFF
POWER ON/OFF
ST
RELAY
R827 2.2k
R824 2.2k
R826 10k
C807 100 6.3V
C806 0.01
C808 30p
C809 30p
CF801
R814 10k
R812 10k
R813 10k
C805 0.01
R898 100k
R899 10k
【SYSTEM SW BOARD (1/2)】
S801 SYSTEM POWER
D802 1SS202-1
D804 1SS202-1
D811 SEL2210R
R808 1k (1/4W)
STANDBY
D811
Q801-803 2SC2603F BUFFER
Q802
Q801
R823 10k
R825 47k
C811 0.001
Q804 2SC2603F BUFFER
SYSTEM POWER OFF:Q2
SYSTEM POWER ON:−0.3 OFF:0.3
R816 1k
R817 10k
R819 220
R818 47k
C810 1/50V
C520 47 35V
R521 220 (1/4W)
R520 470 (1/2W)
Q501 2SD789 VOL.REG
D502 HZ6C2L
R522 2.2k
C522 0.022
C523 47 35V
C521 47 35V
D502

【LED BOARD】
【CONTROL BOARD】
【PRESET BOARD】
【SYSTEM SW BOARD (1/2)】
【POWER SW BOARD】

FE101 FM FRONTEND FEE 4013A (G-AEP MODEL)

IC401 LA3401 MPX
IC501 LA5666 VOL.REG
IC802 μPD7507HC-033 CONTROLLER

Q402, 403 2SC2603F MUTING
Q401 DTC114ES SWITCH
Q502 DTC114ES SWITCH
Q503 2SC2603F AM B+ SWITCHING
Q504 DTA144ES FM B+ SWITCHING
Q505 2SD880 LAMP DRIVE
Q806 2SC2603F RELAY DRIVE
Q807 2S2603F RELAY DRIVE
Q501 2SD789 VOL.REG
Q801-803 2SC2603F BUFFER
Q804 2SC2603F BUFFER

D401 SEL2210W-C
D503-505 ISS202-1
D709-717 ISS202-1
D701-703,706 ISS202-1
D402 ISS202-1
D803 ISS202-1
D804 ISS202-1
D802 ISS202-1
D808,809 ISS202-1
D807 ISS202-1
D811 SEL2210R
D501 S1VB20
D502 HZ6C2L

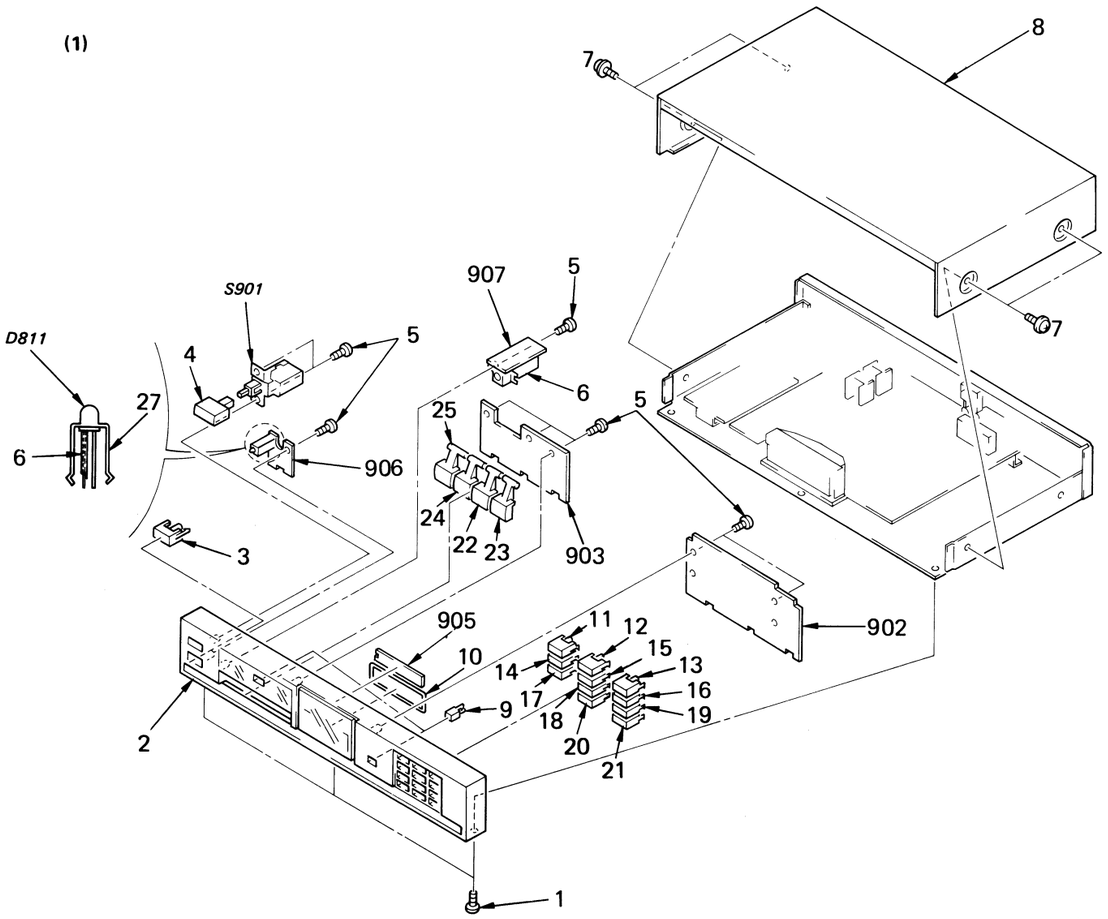
J901 OUTPUT L R
CNJ901 AC OUTLET (SWITCHED 500W MAX)
S801 SYSTEM POWER
D505 D504 D503 G-AEP MODEL

SECTION 5
EXPLODED VIEWS AND PARTS LIST

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

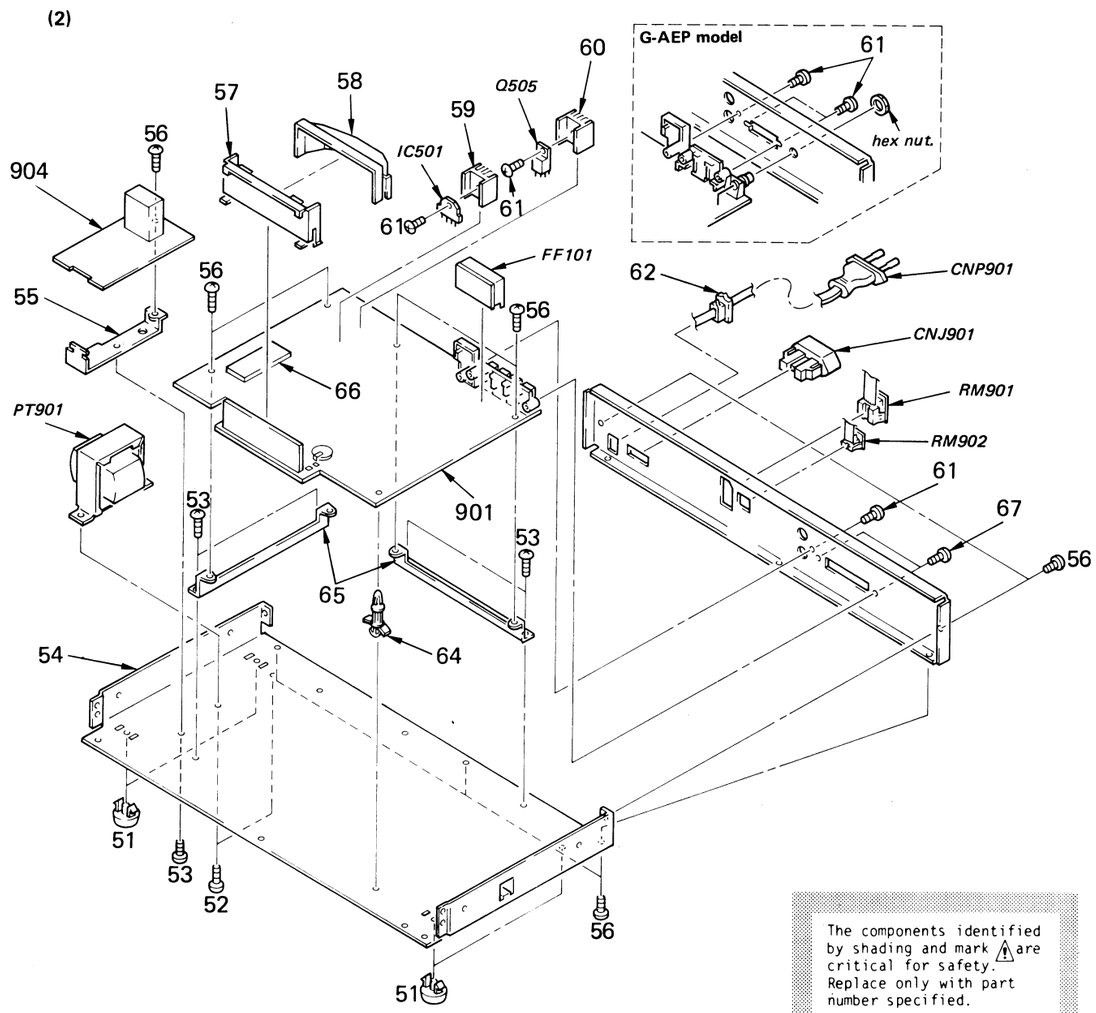
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

(1)



No.	Part No.	Description	Remarks
1	7-685-752-04	SCREW +BVTT 3X8 (S)	
2	X-4905-238-1	PANEL ASSY, FRONT	
3	4-905-296-11	KNOB, PUSH (SYSTEM POWER)	
4	3-332-417-11	KNOB (POWER), PUSH	
5	7-685-646-71	SCREW +BVTP 3X8 TYPE2 N-S	
6	*4-905-282-01	PLATE, SHIELD	
7	4-886-821-01	SCREW, M3 CASE	
8	4-905-463-41	CASE	
9	4-905-275-01	KNOB, PUSH	
10	*4-905-297-01	CUSHION, LAMP	
11	4-905-295-01	KNOB, PUSH (1)	
12	4-905-295-11	KNOB, PUSH (2)	
13	4-905-295-21	KNOB, PUSH (3)	
14	4-905-295-31	KNOB, PUSH (4)	
15	4-905-295-41	KNOB, PUSH (5)	
16	4-905-295-51	KNOB, PUSH (6)	
17	4-905-295-61	KNOB, PUSH (7)	
18	4-905-295-71	KNOB, PUSH (8)	
19	4-905-295-81	KNOB, PUSH (9)	
20	4-905-295-91	KNOB, PUSH (0)	
21	4-905-296-01	KNOB, PUSH (ENTER)	
22	4-905-294-01	KNOB, PUSH (-)	
23	4-905-294-11	KNOB, PUSH (+)	
24	4-905-294-21	KNOB, PUSH (TUNING)	
25	4-905-294-41	KNOB, PUSH (FM/AM)	
26	*4-905-273-01	CUSHION, LED	
27	*4-905-283-01	HOLDER, LED	
902	*1-618-866-11	PC BOARD, PRESET	
903	*1-618-867-11	PC BOARD, CONTROL	
905	*1-618-874-11	PC BOARD, LED	
906	*1-618-875-11	PC BOARD, SYSTEM SWITCH	
907	*1-618-877-11	PC BOARD, DETECTOR	
S901	⚠1-553-318-51	SWITCH, PUSH (AC POWER)(1 KEY)	

(2)



The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

No.	Part No.	Description	Remarks
51	X-3701-069-0	FOOT ASSY, M.F	
52	7-685-880-01	SCREW +BVTT 4X6 (S)	
53	7-685-871-01	SCREW +BVTT 3X6 (S)	
54	*4-904-481-11	CHASSIS	
55	*4-902-812-01	HOLDER, FUSE PC BOARD	
56	7-685-752-04	SCREW +BVTT 3X8 (S)	
57	*4-909-633-01	ILLUMINATOR	
58	*4-904-515-01	HOUSE, LAMP	
59	*4-363-146-51	HEAT SINK, V.OUT	
60	*4-363-146-41	HEAT SINK, V.OUT	
61	7-685-646-71	SCREW +BVTP 3X8 TYPE2 N-S	
62	⚠3-703-244-00	BUSHING (2104), CORD	
63	*4-904-274-51	(G-AEP)...PLATE, JACK	
	*4-905-274-21	(AEP).....PLATE, JACK	
	*4-905-274-31	(AEP).....PLATE, JACK	
64	*3-703-353-05	SUPPORT, PC BOARD	
65	*4-905-284-01	FRAME	
66	*4-905-281-01	PLATE, SHIELD	
67	3-703-473-00	SCREW, TERMINAL	
901	*A-4351-512-A	(AEP).....MOUNTED PCB, TUNER	
	*A-4351-513-A	(G-AEP)...MOUNTED PCB, TUNER	
904	*1-618-869-11	PC BOARD, AC RELAY	
911	1-533-183-11	(AEP)...HOLDER, FUSE	
	⚠CNJ901.1-526-794-11	OUTLET, AC	
	⚠CNP901.1-534-817-XX	CORD, POWER, EULO PLUG	
	PT901⚠.1-448-536-11	TRANSFORMER, POWER	
RM901	*1-558-235-11	CORD (WITH CONNECTOR)	
RM902	*1-558-520-11	CORD (WITH CONNECTOR) 3P	

NOTE:
- Items marke they are se service. S pated when
- If there ar set such as typical cir capacitors circuits ma

Ref.No.	P
901	*A *A
902	*1
903	*1
904	*1
905	*1
906	*1
907	*1
908	*1
909	*1
910	1
911	1
BA701	1
C101	1
C102	1
C103	1
C104	1
C105	1
C106	1
C107	1
C108	1
C201	1
C202	1
C203	1
C204	1
C205	1
C206	1
C207	1
C208	1
C209	1
C210	1
C211	1
C212	1
C213	1
C236	1
C301	1
C302	1
C303	1
C304	1
C305	1
C306	1
C307	1
C307	1
C308	1
C309	1
C310	1

SECTION 6
ELECTRICAL PARTS LIST

NOTE:
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
901	*A-4351-512-A	(AEP).....MOUNTED PCB, TUNER			
	*A-4351-513-A	(G-AEP)...MOUNTED PCB, TUNER			
902	*1-618-866-11	PC BOARD, PRESET			
903	*1-618-867-11	PC BOARD, CONTROL			
904	*1-618-869-11	PC BOARD, AC RELAY			
905	*1-618-874-11	PC BOARD, LED			
906	*1-618-875-11	PC BOARD, SYSTEM SWITCH			
907	*1-618-877-11	PC BOARD, DETECTOR			
908	*1-535-115-00	TERMINAL			
909	*1-535-139-00	BASE POST 19MM (10MM PITCH) 2P			
910	1-535-416-00	TERMINAL			
911	1-533-183-11	(AEP)...HOLDER, FUSE			
BA701	1-528-120-00	BATTERY, LITHIUM (CR-2025)			
C101	1-162-294-31	CERAMIC	0.001MF	10%	50V
C102	1-162-294-31	CERAMIC	0.001MF	10%	50V
C103	1-123-332-00	ELECT	47MF	20%	16V
C104	1-161-494-00	CERAMIC	0.022MF	30%	25V
C105	1-161-494-00	CERAMIC	0.022MF	30%	25V
C106	1-161-494-00	CERAMIC	0.022MF	30%	25V
C107	1-161-494-11	(G-AEP)...CERAMIC	0.022MF	30%	25V
C108	1-161-494-11	(G-AEP)...CERAMIC	0.022MF	30%	25V
C201	1-161-494-00	CERAMIC	0.022MF	30%	25V
C202	1-102-880-00	CERAMIC	15PF	5%	50V
C203	1-104-069-00	POLYSTYRENE	470PF	5%	50V
C204	1-101-006-00	CERAMIC	0.047MF		50V
C205	1-161-494-00	CERAMIC	0.022MF	30%	25V
C206	1-101-888-00	CERAMIC	68PF	5%	50V
C207	1-161-494-00	CERAMIC	0.022MF	30%	25V
C208	1-102-703-21	CERAMIC	120PF	5%	50V
C209	1-103-708-11	POLYSTYRENE	200PF	5%	50V
C210	1-162-301-31	CERAMIC	0.0015MF	30%	16V
C211	1-102-120-00	CERAMIC	0.0018MF	10%	50V
C212	1-161-494-00	CERAMIC	0.022MF	30%	25V
C213	1-101-006-00	CERAMIC	0.047MF		50V
C236	1-101-971-00	CERAMIC	15PF	5%	50V
C301	1-123-332-00	ELECT	47MF	20%	16V
C302	1-161-494-00	CERAMIC	0.022MF	30%	25V
C303	1-101-006-00	CERAMIC	0.047MF		50V
C304	1-101-006-00	CERAMIC	0.047MF		50V
C305	1-123-382-00	ELECT	3.3MF	20%	50V
C306	1-123-380-00	ELECT	1MF	20%	50V
C307	1-162-211-31	(AEP).....CERAMIC	33PF	5%	50V
C307	1-162-290-31	(G-AEP)...CERAMIC	470PF	10%	50V
C308	1-161-494-00	CERAMIC	0.022MF	30%	25V
C309	1-123-382-00	ELECT	3.3MF	20%	50V
C310	1-123-382-00	ELECT	3.3MF	20%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C311	1-161-494-00	CERAMIC	0.022MF	30%	25V
C312	1-123-382-00	ELECT	3.3MF	20%	50V
C313	1-162-215-31	CERAMIC	47PF	5%	50V
C314	1-123-369-00	ELECT	4.7MF	20%	50V
C315	1-101-006-00	CERAMIC	0.047MF		50V
C316	1-123-356-00	ELECT	10MF	20%	25V
C317	1-161-494-00	CERAMIC	0.022MF	30%	25V
C318	1-162-207-31	CERAMIC	22PF	5%	50V
C319	1-161-494-00	CERAMIC	0.022MF	30%	25V
C370	1-123-369-00	ELECT	4.7MF	20%	50V
C401	1-108-583-00	MYLAR	0.015MF	5%	50V
C402	1-162-286-31	(G-AEP)...CERAMIC	220PF	10%	50V
C403	1-123-356-00	ELECT	10MF	20%	25V
C404	1-162-288-31	CERAMIC	330PF	10%	50V
C405	1-108-595-00	MYLAR	0.047MF	5%	50V
C406	1-123-356-00	ELECT	10MF	20%	25V
C407	1-162-288-31	CERAMIC	330PF	10%	50V
C408	1-162-288-31	CERAMIC	330PF	10%	50V
C409	1-123-382-00	ELECT	3.3MF	20%	50V
C410	1-123-382-00	ELECT	3.3MF	20%	50V
C411	1-162-294-31	(G-AEP)...CERAMIC	0.001MF	10%	50V
C412	1-162-294-31	(G-AEP)...CERAMIC	0.001MF	10%	50V
C413	1-123-356-00	ELECT	10MF	20%	25V
C414	1-123-380-00	ELECT	1MF	20%	50V
C415	1-123-380-00	ELECT	1MF	20%	50V
C416	1-123-608-00	ELECT	0.22MF	20%	50V
C417	1-123-382-00	ELECT	3.3MF	20%	50V
C418	1-161-494-00	CERAMIC	0.022MF	30%	25V
C419	1-123-332-00	ELECT	47MF	20%	16V
C425	1-101-002-00	CERAMIC	0.0022MF		50V
C426	1-101-002-00	CERAMIC	0.0022MF		50V
C501	1-101-004-00	CERAMIC	0.01MF		50V
C502	1-101-004-00	CERAMIC	0.01MF		50V
C503	1-101-004-00	CERAMIC	0.01MF		50V
C504	1-101-004-00	CERAMIC	0.01MF		50V
C505	1-124-901-00	ELECT	1000MF	20%	35V
C506	1-123-356-00	ELECT	10MF	20%	25V
C507	1-161-494-00	CERAMIC	0.022MF	30%	25V
C509	1-123-380-00	ELECT	1MF	20%	50V
C510	1-161-494-00	CERAMIC	0.022MF	30%	25V
C515	1-101-005-00	CERAMIC	0.022MF		50V
C520	1-123-359-00	ELECT	47MF	20%	35V
C521	1-123-359-00	ELECT	47MF	20%	35V
C522	1-101-005-00	CERAMIC	0.022MF		50V
C523	1-123-359-00	ELECT	47MF	20%	35V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C550	1-101-005-00	CERAMIC	0.022MF		50V
C560	1-123-356-00	ELECT	10MF	20%	50V
C601	1-161-494-00	CERAMIC	0.022MF	30%	25V
C602	1-161-494-00	CERAMIC	0.022MF	30%	25V
C603	1-123-356-00	ELECT	10MF	20%	25V
C604	1-123-379-00	ELECT	0.47MF	20%	50V
C605	1-123-379-00	ELECT	0.47MF	20%	50V
C606	1-123-332-00	ELECT	47MF	20%	16V
C607	1-161-494-00	CERAMIC	0.022MF	30%	25V
C608	1-130-776-00	FILM	0.47MF	5%	63V
C609	1-123-607-00	ELECT	0.1MF	20%	50V
C611	1-101-005-00	CERAMIC	0.022MF		50V
C612	1-101-005-00	CERAMIC	0.022MF		50V
C613	1-101-005-00	CERAMIC	0.022MF		50V
C701	1-123-333-00	ELECT	100MF	20%	16V
C702	1-161-494-00	CERAMIC	0.022MF	30%	25V
C703	1-102-852-00	CERAMIC	47PF	5%	50V
C704	1-102-852-00	CERAMIC	47PF	5%	50V
C705	1-123-369-00	ELECT	4.7MF	20%	50V
C706	1-123-380-00	ELECT	1MF	20%	50V
C710	1-161-494-00	CERAMIC	0.022MF	30%	25V
C801	1-123-611-00	ELECT	1MF	20%	50V
C802	1-123-613-00	ELECT	3.3MF	20%	50V
C803	1-162-288-31	CERAMIC	330PF	10%	50V
C804	1-123-821-00	ELECT	47MF	20%	16V
C805	1-162-306-31	CERAMIC	0.01MF	30%	16V
C806	1-162-306-31	CERAMIC	0.01MF	30%	16V
C807	1-123-661-00	ELECT	100MF	20%	6.3V
C808	1-102-517-00	CERAMIC	30PF	5%	50V
C809	1-102-517-00	CERAMIC	30PF	5%	50V
C810	1-123-380-00	ELECT	1MF	20%	50V
C811	1-162-294-31	CERAMIC	0.001MF	10%	50V
C812	1-123-332-00	ELECT	47MF	20%	16V
C901 ⚠	1-161-744-00	CERAMIC	0.01MF		400V
C902 ⚠	1-161-744-00	CERAMIC	0.01MF		400V
C903	1-101-005-00	(G-AEP)...CERAMIC	0.022MF		50V
CF101	1-567-389-11	FILTER, CERAMIC			
CF102	1-567-389-11	FILTER, CERAMIC			
CF103	1-567-389-11	(G-AEP)...FILTER, CERAMIC			
CF301	1-527-981-00	FILTER, CERAMIC			
CF302	1-527-937-00	FILTER, CERAMIC			
CF401	1-567-250-11	OSCILLATOR, CERAMIC			
CF801	1-567-192-11	OSCILLATOR, CERAMIC			
CNJ701*1-564-507-11		PLUG, CONNECTOR 4P			
CNJ702*1-564-508-11		PLUG, CONNECTOR 5P			
CNJ705*1-564-505-11		PLUG, CONNECTOR 2P			
CNJ710*1-564-506-11		PLUG, CONNECTOR 3P			
CNJ711*1-564-507-11		PLUG, CONNECTOR 4P			
CNJ712*1-564-506-11		PLUG, CONNECTOR 3P			
⚠CNJ901	1-526-794-11	OUTLET, AC			
⚠CNP901	1-534-817-XX	CORD, POWER, EULO PLUG			
CT201	1-141-180-00	CAP, TRIMMER 15P			
CT202	1-141-180-00	CAP, TRIMMER 15P			
CT203	1-141-171-00	CAP, TRIMMER 20P			
CT204	1-141-171-00	CAP, TRIMMER 20P			
D301	8-719-902-79	DIODE KV1236Z			
D302	8-719-107-94	DIODE 1SS202-1			
D303	8-719-902-79	DIODE KV1236Z			

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D401	8-719-302-74	DIODE SEL2210W-C
D402	8-719-107-94	DIODE 1SS202-1
D501 ⚠	8-719-511-20	DIODE S1VB20
D502	8-719-910-68	DIODE HZ6C2L
D503	8-719-107-94	DIODE 1SS202-1
D504	8-719-107-94	DIODE 1SS202-1
D505	8-719-107-94	DIODE 1SS202-1
D701	8-719-107-94	DIODE 1SS202-1
D702	8-719-107-94	DIODE 1SS202-1
D703	8-719-107-94	DIODE 1SS202-1
D706	8-719-107-94	DIODE 1SS202-1
D709	8-719-107-94	DIODE 1SS202-1
D710	8-719-107-94	DIODE 1SS202-1
D711	8-719-107-94	DIODE 1SS202-1
D712	8-719-107-94	DIODE 1SS202-1
D713	8-719-107-94	DIODE 1SS202-1
D714	8-719-107-94	DIODE 1SS202-1
D715	8-719-107-94	DIODE 1SS202-1
D716	8-719-107-94	DIODE 1SS202-1
D717	8-719-107-94	DIODE 1SS202-1
D718	8-719-107-94	DIODE 1SS202-1
D719	8-719-107-94	DIODE 1SS202-1
D720	8-719-107-94	DIODE 1SS202-1
D721	8-719-107-94	DIODE 1SS202-1
D722	8-719-107-94	DIODE 1SS202-1
D801	8-719-110-32	DIODE PH302B
D802	8-719-107-94	DIODE 1SS202-1
D803	8-719-107-94	DIODE 1SS202-1
D804	8-719-107-94	DIODE 1SS202-1
D805	8-719-107-94	DIODE 1SS202-1
D806	8-719-107-94	DIODE 1SS202-1
D807	8-719-107-94	DIODE 1SS202-1
D808 ⚠	8-719-107-94	DIODE 1SS202-1
D809 ⚠	8-719-107-94	DIODE 1SS202-1
D811	8-719-300-71	DIODE SEL2210R
F901 ⚠	1-532-237-00	(AEP)...FUSE, TIME-LAG T3.15A
FE101	1-463-609-11	(AEP).....FRONT END, FM (FEE-3012A)
FE101	1-463-611-11	(G-AEP)...FRONT END, FM (FEE-4013A)
IC301	8-759-801-81	IC LA1265
IC401	8-759-801-80	IC LA3401
IC501	8-759-802-61	IC LA5666
IC601	8-759-202-63	IC TC9172P
IC701	8-759-207-45	IC TC9302AF-018
IC801	8-759-602-54	IC CX20106A
IC802	8-579-107-77	IC UPD7507HC-033
J901	1-507-807-00	(AEP).....JACK, PIN 2P
J901	1-507-997-11	(G-AEP)...JACK, PIN 2P
L101	1-410-564-21	MICRO INDUCTOR 100UH
L102	1-410-564-21	(G-AEP)....MICRO INDUCTOR 100UH
L209	1-410-568-21	MICRO INDUCTOR 220UH
L301	1-408-920-00	MICRO INDUCTOR 4.7MMH
L501	1-410-564-21	MICRO INDUCTOR 100UH
LCD701	1-807-453-21	DISPLAY PANEL, LIQUID CRYSTAL
LPF401	1-235-221-00	(G-AEP)....FILTER, LOW PASS

ELECTRICAL PARTS

Ref.No.	Part No.	Description
PL501	1-518-576-31	LAMP, PILOT
PL502	1-518-576-31	LAMP, PILOT
PT901⚠	1-448-536-11	TRANSFORMER, POWER
Q101	8-729-201-96	TRANSISTOR 2SSC380TMY
Q102	8-729-201-96	TRANSISTOR 2SSC380TMY
Q103	8-729-201-96	(G-AEP)...TRANSISTOR 2SSC380TMY
Q104	8-729-201-96	(G-AEP)...TRANSISTOR 2SSC380TMY
Q201	8-729-900-80	TRANSISTOR DTC114ES
Q202	8-729-900-80	TRANSISTOR DTC114ES
Q203	8-729-900-80	TRANSISTOR DTC114ES
Q204	8-729-606-33	TRANSISTOR 2SC2603F
Q205	8-729-117-54	TRANSISTOR 2SA1175
Q206	8-729-900-80	TRANSISTOR DTC114ES
Q301	8-729-900-80	TRANSISTOR DTC114ES
Q401	8-729-900-80	TRANSISTOR DTC114ES
Q402	8-729-606-33	TRANSISTOR 2SC2603F
Q403	8-729-606-33	TRANSISTOR 2SC2603F
Q501	8-729-378-91	TRANSISTOR 2SD789
Q502	8-729-900-80	TRANSISTOR DTC114ES
Q503	8-729-606-33	TRANSISTOR 2SC2603F
Q504	8-729-900-65	TRANSISTOR DTA144ES
Q505	8-729-288-02	TRANSISTOR 2SD880
Q601	8-729-203-05	TRANSISTOR 2SK30AGR3
Q602	8-729-201-84	TRANSISTOR 2SC3112B
Q603	8-729-203-05	TRANSISTOR 2SK30AGR3
Q604	8-729-201-84	TRANSISTOR 2SC3112B
Q801	8-729-606-33	TRANSISTOR 2SC2603F
Q802	8-729-606-33	TRANSISTOR 2SC2603F
Q803	8-729-606-33	TRANSISTOR 2SC2603F
Q804	8-729-606-33	TRANSISTOR 2SC2603F
Q805	8-729-117-54	TRANSISTOR 2SA1175
Q806	8-729-606-33	TRANSISTOR 2SC2603F
Q807	8-729-606-33	TRANSISTOR 2SC2603F
R101⚠	1-247-115-00	CARBON 220 5% 1/4W F
R102	1-247-819-00	(AEP).....CARBON 330 5% 1/6W
R102	1-247-821-00	(G-AEP)...CARBON 390 5% 1/6W
R103	1-247-819-00	(AEP).....CARBON 330 5% 1/6W
R103	1-249-417-11	(G-AEP)...CARBON 1K 5% 1/6W
R104	1-247-821-00	(G-AEP)...CARBON 390 5% 1/6W
R105	1-249-432-11	CARBON 18K 5% 1/6W
R106	1-247-819-00	CARBON 330 5% 1/6W
R107	1-249-414-11	CARBON 560 5% 1/6W
R108	1-247-819-00	CARBON 330 5% 1/6W
R109	1-249-434-11	CARBON 27K 5% 1/6W
R110	1-249-432-11	(G-AEP)...CARBON 18K 5% 1/6W
R111	1-247-819-00	(G-AEP)...CARBON 330 5% 1/6W
R212	1-247-829-00	(G-AEP)...CARBON 820 5% 1/6W
R213	1-249-819-00	(G-AEP)...CARBON 330 5% 1/6W
R214	1-249-434-11	(G-AEP)...CARBON 27K 5% 1/6W
R201	1-247-893-00	CARBON 390K 5% 1/6W
R202	1-249-441-11	CARBON 100K 5% 1/6W
R203	1-249-425-11	CARBON 4.7K 5% 1/6W
R204	1-249-425-11	CARBON 4.7K 5% 1/6W
R205	1-249-429-11	CARBON 10K 5% 1/6W
R206	1-247-893-00	CARBON 390K 5% 1/6W
R207	1-249-441-11	CARBON 100K 5% 1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description
R208	1-247-903-00	CARBON 1M 5% 1/6W
R209	1-249-441-11	CARBON 100K 5% 1/6W
R210	1-249-434-11	CARBON 27K 5% 1/6W
R211	1-249-433-11	CARBON 22K 5% 1/6W
R212	1-249-421-11	CARBON 2.2K 5% 1/6W
R213	1-249-433-11	CARBON 22K 5% 1/6W
R214	1-247-823-00	CARBON 470 5% 1/6W
R301⚠	1-247-119-00	CARBON 330 5% 1/4W F
R302	1-247-849-00	CARBON 5.6K 5% 1/6W
R303	1-247-840-00	CARBON 2.4K 5% 1/6W
R304	1-247-864-00	CARBON 24K 5% 1/6W
R305	1-247-805-00	CARBON 82 5% 1/6W
R306	1-247-843-00	CARBON 3.3K 5% 1/6W
R307	1-249-429-11	CARBON 10K 5% 1/6W
R308	1-249-429-11	CARBON 10K 5% 1/6W
R309	1-247-801-00	CARBON 56 5% 1/6W
R315	1-249-417-11	CARBON 1K 5% 1/6W
R320	1-247-823-00	CARBON 470 5% 1/6W
R322	1-249-417-11	CARBON 1K 5% 1/6W
R402	1-249-425-11	CARBON 4.7K 5% 1/6W
R403	1-249-429-11	CARBON 10K 5% 1/6W
R404	1-247-885-00	CARBON 180K 5% 1/6W
R405	1-247-885-00	CARBON 180K 5% 1/6W
R406	1-247-883-00	CARBON 150K 5% 1/6W
R407	1-247-883-00	CARBON 150K 5% 1/6W
R408	1-249-425-11	CARBON 4.7K 5% 1/6W
R409	1-249-425-11	CARBON 4.7K 5% 1/6W
R410	1-249-425-11	CARBON 4.7K 5% 1/6W
R411	1-249-425-11	CARBON 4.7K 5% 1/6W
R412	1-249-441-11	CARBON 100K 5% 1/6W
R413	1-247-133-00	CARBON 1.2K 5% 1/4W
R414	1-249-433-11	CARBON 22K 5% 1/6W
R415	1-249-425-11	CARBON 4.7K 5% 1/6W
R416	1-249-417-11	CARBON 1K 5% 1/6W
R417	1-247-853-00	CARBON 8.2K 5% 1/6W
R418	1-247-849-00	CARBON 5.6K 5% 1/6W
R419⚠	1-247-109-00	CARBON 120 5% 1/4W F
R420	1-249-429-11	CARBON 10K 5% 1/6W
R421	1-249-435-11	CARBON 33K 5% 1/6W
R422	1-249-435-11	CARBON 33K 5% 1/6W
R502⚠	1-206-452-61	METAL OXIDE 3.6 5% 2W F
R504	1-249-437-11	CARBON 47K 5% 1/6W
R506	1-249-429-11	CARBON 10K 5% 1/6W
R520⚠	1-247-232-00	CARBON 470 5% 1/2W F
R521⚠	1-247-115-00	CARBON 220 5% 1/4W F
R522	1-249-421-11	CARBON 2.2K 5% 1/6W
R602	1-249-417-11	CARBON 1K 5% 1/6W
R603	1-249-417-11	CARBON 1K 5% 1/6W
R604	1-249-417-11	CARBON 1K 5% 1/6W
R605	1-249-417-11	CARBON 1K 5% 1/6W
R606⚠	1-247-107-00	CARBON 100 5% 1/4W F
R607	1-249-437-11	CARBON 47K 5% 1/6W
R608	1-249-414-11	CARBON 560 5% 1/6W
R609	1-247-829-00	CARBON 820 5% 1/6W
R610	1-247-817-00	CARBON 270 5% 1/6W
R611	1-249-435-11	CARBON 33K 5% 1/6W
R612	1-249-421-11	CARBON 2.2K 5% 1/6W

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ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R613	1-249-425-11	CARBON	4.7K	5%	1/6W
R614⚠	1-247-107-00	CARBON	100	5%	1/4W F
R615	1-249-417-11	CARBON	1K	5%	1/6W
R616	1-249-414-11	CARBON	560	5%	1/6W
R617	1-247-833-00	CARBON	1.2K	5%	1/6W
R618	1-247-817-00	CARBON	270	5%	1/6W
R619	1-249-433-11	CARBON	22K	5%	1/6W
R620	1-249-421-11	CARBON	2.2K	5%	1/6W
R621	1-249-425-11	CARBON	4.7K	5%	1/6W
R701	1-249-425-11	CARBON	4.7K	5%	1/6W
R702	1-249-405-11	CARBON	100	5%	1/6W
R703	1-247-843-00	CARBON	3.3K	5%	1/6W
R704	1-249-425-11	CARBON	4.7K	5%	1/6W
R801	1-247-783-00	CARBON	10	5%	1/6W
R802	1-215-476-00	METAL	200K	1%	1/6W
R803	1-249-425-11	CARBON	4.7K	5%	1/6W
R804	1-247-811-00	CARBON	150	5%	1/6W
R805	1-249-429-11	CARBON	10K	5%	1/6W
R806	1-249-429-11	CARBON	10K	5%	1/6W
R807	1-249-425-11	CARBON	4.7K	5%	1/6W
R808	1-247-713-11	CARBON	1K	5%	1/4W
R812	1-249-429-11	CARBON	10K	5%	1/6W
R813	1-249-429-11	CARBON	10K	5%	1/6W
R814	1-249-429-11	CARBON	10K	5%	1/6W
R815	1-249-441-11	CARBON	100K	5%	1/6W
R816	1-249-417-11	CARBON	1K	5%	1/6W
R817	1-249-429-11	CARBON	10K	5%	1/6W
R818	1-249-437-11	CARBON	47K	5%	1/6W
R819	1-247-815-00	CARBON	220	5%	1/6W
R820	1-249-429-11	CARBON	10K	5%	1/6W
R821	1-247-783-00	CARBON	10	5%	1/6W
R822	1-249-429-11	CARBON	10K	5%	1/6W
R823	1-249-429-11	CARBON	10K	5%	1/6W
R824	1-249-421-11	CARBON	2.2K	5%	1/6W
R825	1-249-437-11	CARBON	47K	5%	1/6W
R826	1-249-429-11	CARBON	10K	5%	1/6W
R827	1-249-421-11	CARBON	2.2K	5%	1/6W
R828	1-249-429-11	CARBON	10K	5%	1/6W
R829	1-249-429-11	CARBON	10K	5%	1/6W
R830	1-249-441-11	CARBON	100K	5%	1/6W
R831⚠	1-206-644-00	METAL OXIDE	150	5%	2W F
R832⚠	1-206-648-00	METAL OXIDE	220	5%	2W F
R898	1-249-441-11	CARBON	100K	5%	1/6W
R899	1-249-429-11	CARBON	10K	5%	1/6W
⚠RLY801	1-515-617-11	RELAY			
⚠RLY802	1-515-616-11	RELAY			
RM901	*1-558-235-11	CORD (WITH CONNECTOR)			
RM902	*1-558-520-11	CORD (WITH CONNECTOR) 3P			
RV301	1-228-996-00	RES, ADJ, CARBON 47K			
RV302	1-228-994-00	RES, ADJ, CARBON 10K			
RV401	1-228-998-00	RES, ADJ, CARBON 220K			
S701	1-554-303-21	SWITCH, KEY BOARD (MEMORY)			
S702	1-554-303-21	SWITCH, KEY BOARD (1)			
S703	1-554-303-21	SWITCH, KEY BOARD (2)			
S704	1-554-303-21	SWITCH, KEY BOARD (3)			
S705	1-554-303-21	SWITCH, KEY BOARD (4)			
S706	1-554-303-21	SWITCH, KEY BOARD (5)			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
S707	1-554-303-21	SWITCH, KEY BOARD (6)
S708	1-554-303-21	SWITCH, KEY BOARD (7)
S709	1-554-303-21	SWITCH, KEY BOARD (8)
S710	1-554-303-21	SWITCH, KEY BOARD (9)
S711	1-554-303-21	SWITCH, KEY BOARD (0)
S712	1-554-303-21	SWITCH, KEY BOARD (ENTER)
S714	1-554-303-21	SWITCH, KEY BOARD (TUNING +)
S715	1-554-303-21	SWITCH, KEY BOARD (TUNING -)
S716	1-554-303-21	SWITCH, KEY BOARD (MEMORY SCAN)
S717	1-554-303-21	SWITCH, KEY BOARD (BAND)
S719	1-554-303-21	SWITCH, KEY BOARD (FM TUNING MODE)
S801	1-554-303-21	SWITCH, KEY BOARD (SYSTEM POWER)
S901⚠	1-553-318-51	SWITCH, PUSH (AC POWER)(1 KEY)
T201	1-402-080-11	COIL, ANT (MW)
T202	1-406-089-11	COIL (OSC)
T203	1-402-071-11	COIL, ANT (LW)
T204	1-406-207-11	COIL, LW (OSC)
T301	1-404-659-11	COIL, DISCRIMINATOR
T302	1-404-535-11	COIL (WITH IFT)
T401	1-235-126-00	(G-AEP)...ENCAPSULATED COMPONENT
TM101	1-536-707-00	(G-AEP)...TERMINAL BOARD, PUSH 2P
TM101	1-536-708-00	(AEP).....TERMINAL BOARD, PUSH 4P
TM102	1-563-199-11	(G-AEP)...CONNECTOR, PAL
TP301	*1-560-060-00	PIN, CONNECTOR 2P
TP701	*1-560-063-00	PIN, CONNECTOR 5P
XT701	1-567-125-00	VIBRATOR, CRYSTAL

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-402-082-11	ANTENNA, FERRITE-ROD (LW/MW/SW)
1-463-726-11	REMOTE COMMANDER (RM-S400)
1-501-351-21	ANTENNA, FEEDER
1-506-452-11	(AEP)....ADAPTOR, PLUG
1-558-232-11	CORD (WITH CONNECTOR)(SIRCS)4P
1-558-543-21	CORD, CONNECTION
1-558-564-11	CORD (WITH CONNECTOR) 3P
3-701-630-00	BAG, POLYETHYLENE
3-703-713-41	STICKER, SONY SYMBOL (10)
3-765-297-11	(AEP)....MANUAL, INSTRUCTION
3-765-297-41	MANUAL, INSTRUCTION
4-876-352-00	SHEET, PROTECTION
4-905-240-01	CUSHION, LOWER
4-905-242-01	CUSHION (LEFT), UPPER
4-905-243-01	CUSHION (RIGHT), UPPER
4-905-292-21	INDIVIDUAL CARTON
4-907-610-01	JOINT

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